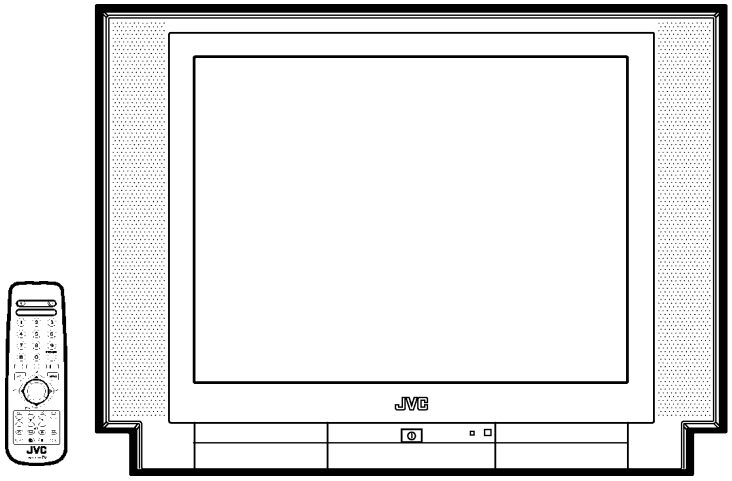
AV-29BF11ENS
AV-29BF11EPS
AV-29BF11EES

JVC

SERVICE MANUAL

COLOUR TELEVISION

AV-29BF11ENS
AV-29BF11EPS
AV-29BF11EES



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No.52084
Sep. 2002

AV-29BF11ENS
AV-29BF11EPS
AV-29BF11EES

SPECIFICATIONS

ITEM		Content		
		AV-29BF11ENS	**AV-29BF11EPS**	**AV-29BF11EES**
Dimensions (WxHxD)		78.4 × 58.2 × 49.3 cm		
Mass		46.2 kg		
TV RF System		B/G	B/G, L	B/G, D/K, K1
Colour System	**TV Mode**	PAL	PAL / SECAM	←
	Video Mode	PAL / NTSC 3.58 / NTSC 4.43	PAL / SECAM / NTSC 3.58 / NTSC 4.43	←
Teletext System		Fastext / Toptext		
Stereo System		German + NICAM		
Tuning System		Frequency Synthesizer Tuning System		
Number of CH memory position		100 ch		
Receiving Frequency	**VHF (VL)**	46.25MHZ ~ 168.25MHz		
	VHF (VH)	175.25MHz ~ 463.25MHz		
	UHF	471.25MHz ~ 863.25MHz		
	CATV	B/G :S01-S41, S75-S79	B/G :S01-S41, S75-S79 L : S01-S41, S75-S77	B/G :S01-S41, S75-S79 D/K : S01-S41
Intermediate Frequency	**VIF Carrier**	38.9MHz		
	SIF Carrier	32.4MHz (6.5MHz : L)		
		32.9MHz (6.0MHz : D/K)		
		33.4MHz (5.5MHz : B/G)		
Colour Sub Carrier Frequency		PAL (4.43MHz), SECAM (4.43MHz), NTSC (3.58MHz/4.43MHz)		
Aerial Input Terminal		75 Ohm Unbalanced		
Power Input		AC 220 ~ 240V, 50Hz		
Power Consumption		135W(Max.) / 120W(Avg.) , <4W(Standby)		
Picture Tube		Visible size : 68cm Measured diagonally		
High Voltage		29.6kV		
Speaker		(77 ×128 mm oval type + Tweeter) ×2		
Audio Output		10W + 10W		
Input	**Video**	1V(p-p), 75 Ohm		
	Audio (L/R)	500 mV(rms), High Impedance		
Output	**Video**	1 V(p-p), 75 Ohm		
	Audio (L/R)	500 mV(rms), Low Impedance		
Input Terminal	**Rear Side**	AV 1 (Video/Audio/RGB)		
		AV 2 (Video/Audio/S-VHS)		
	Front Side	AV 3 (Video/Audio)		
Output Terminal	**Front Side**	Headphone jack (Stereo mini jack 3.5ϕ)		
	Rear Side	AV 1 (Video/Audio)		
		AV 2 (Video/Audio) (Selected TV, AV1 or AV3)		
Remote Control Unit		VE-30017763 (RM-C1100) , Battery size:AA/R06 x 2		

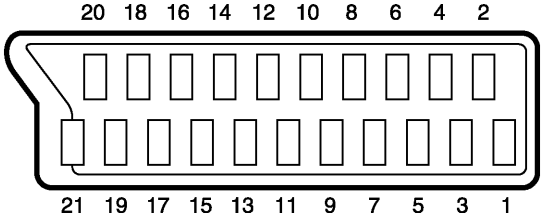
Design & specifications are subject to change without notice.

■21-pin Euro connector (SCART socket) : AV 1 / AV 2

(P-P= Peak to Peak, S-W= Sync tip to white peak, B-W= Blanking to white peak)

Pin No.	Signal Designation	Matching Value	AV 1	AV 2
1	AUDIO R output	500mV(rms) (Nominal),Low impedance	○ (TV OUT)	○ (TV/LINE OUT)
2	AUDIO R input	500mV(rms) (Nominal),High impedance	○	○
3	AUDIO L output	500mV(rms) (Nominal),Low impedance	○ (TV OUT)	○ (TV/LINE OUT)
4	AUDIO GND		○	○
5	GND (B)		○	○
6	AUDIO L input	500mV(rms) (Nominal), High impedance	○	○
7	B input	$700mV_{B-W}$, 75Ω	○	NC
8	FUNCTON SW (SLOW SW)	Low : 0-3V, High : 8-12V, High impedance	○	NC
9	GND (G)		○	○
10	-		NC	-
11	G input	$700mV_{B-W}$, 75Ω	○	NC
12	-		NC	-
13	GND (R)		○	○
14	GND (YS)		○	NC
15	R / C input	R : $700mV_{B-W}$, 75Ω C : $300mV_{(P-P)}$, 75Ω	○ (R/C)	○ (only C)
16	Ys input	Low : 0 – 0.4, High : 1 - 3V, 75Ω	○	NC
17	GND(VIDEO output)		○	○
18	GND(VIDEO input)		○	○
19	VIDEO output	$1V_{S-W}$(Negative going sync), 75Ω	○ (TV)	○ (TV/LINE OUT)
20	VIDEO / Y input	$1V_{S-W}$(Negative going sync), 75Ω	○	○
21	COMMON GND		○	○

[Pin assignment]



SAFETY PRECAUTIONS

1. The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

2. Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.

4. **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
   Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE side GND, the ISOLATED(NEUTRAL) side GND and EARTH side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.
   If above note will not be kept, a fuse or any parts will be broken.

5. If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B1 POWER SUPPLY).

6. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.

7. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.

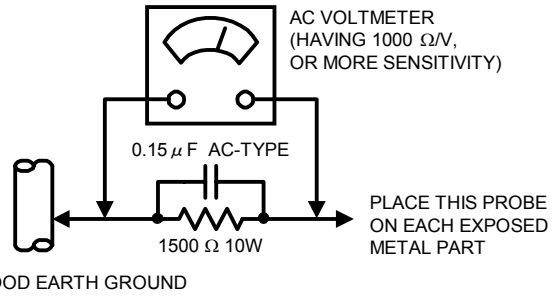
8. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

9. **Isolation Check**
   (Safety for Electrical Shock Hazard)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

(1) **Dielectric Strength Test**
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second.
(. . . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)
This method of test requires a test equipment not generally found in the service trade.

(2) **Leakage Current Check**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

● **Alternate Check Method**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



FEATURES

1. It is a remote controlled colour television.
2. 100 programs from VHF, UHF bands or cable channels can be preset.
3. It can tune cable channels.
4. Controlling the TV is very easy by its menu driven system.
5. It has two Euroconnector sockets for external device (such as video recorder, video games, audio set, etc.)
6. Front AV Input available.
7. Stereo sound systems (German + Nicam) are available.
8. Full function Teletext (Fastext, Toptext).
9. It is possible to connect headphone.
10. Direct channel access.
11. APS (Automatic Programming System).
12. All programs can be named.
13. Forward or backward automatic tuning.
14. Sleep timer
15. Child LOCK
16. Automatic sound mute when no transmission.
17. 5 minutes after the broadcasting (closedown), the TV switches itself automatically to stand-by mode.

MAIN DIFFERENCE LIST

MODEL No. / Parts Name	AV-29BF11ENS	AV-29BF11EPS	AV-29BF11EES
MAIN PWB	VE-20103272	VE-20103267	VE-20103265
LABEL	VE-20103656 VE-20103677(GER) VE-20103679 (ITA)	VE-20103654	VE-20103640 VE-20103638 (POL)
CARTON BOX	VE-50028949 VE-50028950 (GER)	VE-50028947	VE-50028945
INST BOOK	VE-50028493	VE-50028296	VE-50028326

SPECIFIC SERVICE INSTRUCTIONS

DISASSEMBLY PROCEDURE

REMOVING THE REAR COVER

1. Remove the **8** screws marked **A**.
2. Remove the **4** screws marked **B**.
3. Withdraw the rear cover toward you.

REMOVING THE MAIN PWB

- Removing the rear cover.

1. Slightly raise the both sides of the chassis by hand and withdraw MAIN PWB back ward.

[CAUTIONS]
If necessary, take off the wire clamp, connectors etc.
Be careful enough when developing a main chassis.

REMOVING THE FRONT AV & HEADPHONE BOARD ASS'Y

- Removing the rear cover.
- Removing the MAIN PWB.

1. Remove the **2** screws marked **C**, and remove the FRONT AV & HEADPHONE BOARD ASS'Y.

REMOVING THE FRONT CONTROL PWB

- Removing the rear cover.
- Removing the MAIN PWB.

1. Remove the **3** screws marked **D**, and remove the FRONT CONTROL PWB.

REMOVING THE WOOFER and TWEETER

- Removing the rear cover.

1. Remove the **4** screws marked **E**, and remove the WOOFER.
2. Remove the **2** screws marked **F**, and remove the TWEETER.
3. Remove an opposite side similarly.

REMOVING THE MAIN SWITCH

- Removing the rear cover.
- Removeing MAIN PWB.

1. Remove the **2** screws marked **G**, and remove the MAIN SWITCH.

CHECKING THE PW BOARD

To check the back side of the PW Board.

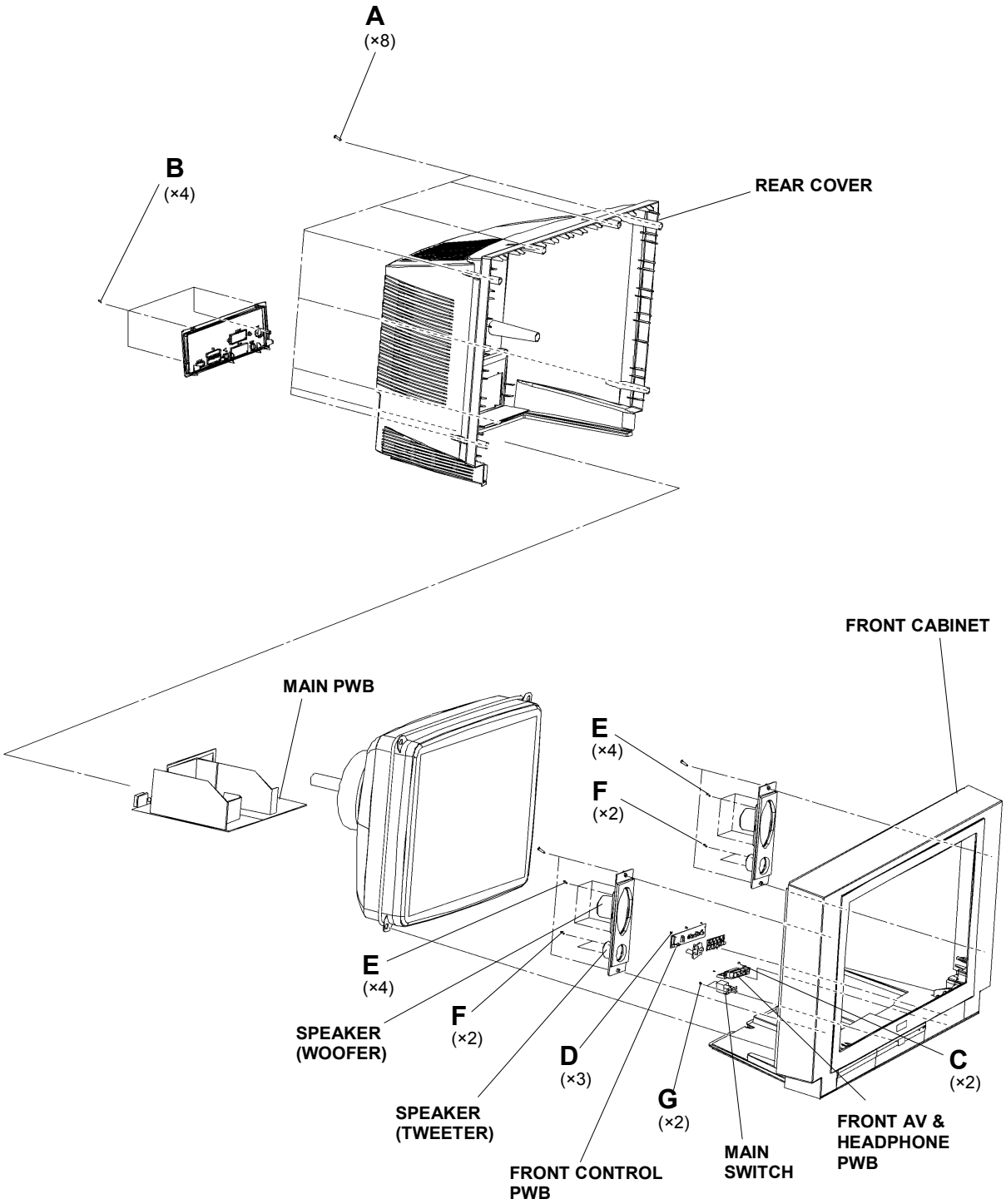
1) Pull out the PW Board. (Refer to REMOVING THE MAIN PWB).
2) Erect the PW Board vertically so that you can easily check the back side of the PW Board.

[CAUTION]

- When erecting the PW Board, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.
- When conducting a check with power supplied, be sure to confirm that the CRT EARTH WIRE (BRAIDED ASS'Y) is connected to the CRT SOCKET PW board.

WIRE CLAMPING AND CABLE TYING

1. Be sure to clamp the wire.
2. Never remove the cable tie used for tying the wires together. Should it be inadvertently removed, be sure to tie the wires with a new cable tie.


A
(×8)
B
(×4)
REAR COVER
FRONT CABINET
MAIN PWB
E
(×4)
F
(×2)
E
(×4)
F
(×2)
SPEAKER
(WOOFER)
D
(×3)
C
(×2)
SPEAKER
(TWEETER)
G
(×2)
FRONT AV &
HEADPHONE
PWB
MAIN
SWITCH
FRONT CONTROL
PWB

REPLACEMENT OF CHIP COMPONENT

■ CAUTIONS

1. Avoid heating for more than 3 seconds.
2. Do not rub the electrodes and the resist parts of the pattern.
3. When removing a chip part, melt the solder adequately.
4. Do not reuse a chip part after removing it.

■ SOLDERING IRON

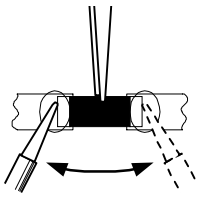
1. Use a high insulation soldering iron with a thin pointed end of it.
2. A 30w soldering iron is recommended for easily removing parts.

■ REPLACEMENT STEPS

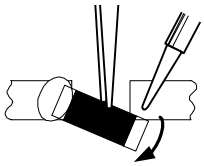
1. How to remove Chip parts

◆ **Resistors, capacitors, etc**

(1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.

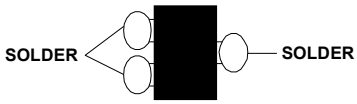


(2) Shift with tweezers and remove the chip part.

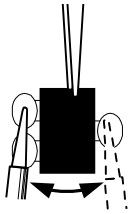


◆ **Transistors, diodes, variable resistors, etc**

(1) Apply extra solder to each lead.



(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

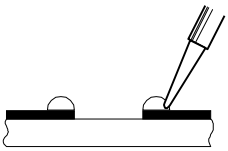


Note : After removing the part, remove remaining solder from the pattern.

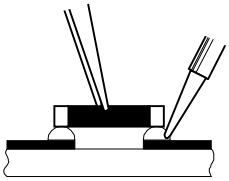
2. How to install Chip parts

◆ **Resistors, capacitors, etc**

(1) Apply solder to the pattern as indicated in the figure.



(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

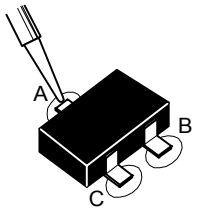


◆ **Transistors, diodes, variable resistors, etc**

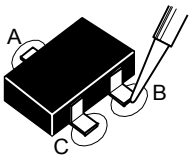
(1) Apply solder to the pattern as indicated in the figure.

(2) Grasp the chip part with tweezers and place it on the solder.

(3) First solder lead **A** as indicated in the figure.



(4) Then solder leads **B** and **C**.



MEMORY IC REPLACEMENT

1. Memory IC

This model use a memory IC.
This memory IC stores data for proper operation of the video and deflection circuits.
When replacing, be sure to use an IC containing this (initial value) data.

2. Memory IC replacement procedure

(1) Power off

Switch off the power and disconnect the power cord from the wall outlet.

(2) Replace the memory IC

Initial value must be entered into the new IC.

(3) Power on

Connect the power cord to the wall outlet and switch on the power.

(4) SERVICE MENU setting

1) Press MENU key and, while the displayed MENU screen, press **4, 7, 2, 5** key on the remote control unit or press MUTING key and INFORMATION key at the simultaneously.
2) The SERVICE MENU screen of Fig.1 is displayed.
3) Verify what to set in the SERVICE MENU, and set whatever is necessary (Fig.1). Refer to the SERVICE ADJUSTMENT for setting.
4) Press the STANDARD key to exit SERVICE MENU.

(5) Receive channel setting

Refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the receive channels (Channels Preset) as described.

(6) User settings

Check the user setting items according to after page.
Where these do not agree, refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the items as described.

SERVICE MENU

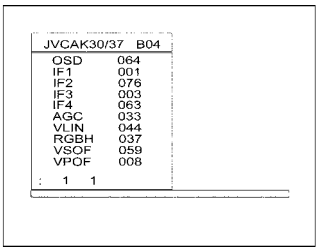


Fig.1

SERVICE MENU SELECT KEY

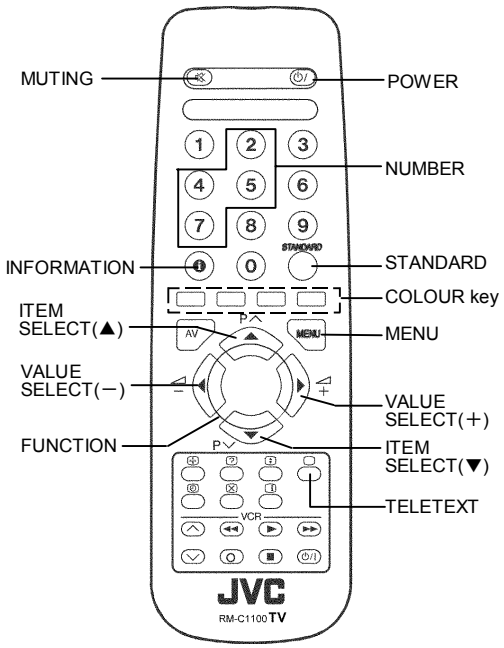


Fig.2

AV-29BF11ENS
AV-29BF11EPS
AV-29BF11EES

SETTING OF THE LAST MEMORY FOR SHIPMENT

■ USER SETTING VALUES

<table>
<tr><th>Setting Item</th><th>Setting Value</th><th>Setting Item</th><th>Setting Value</th></tr>
<tr><td colspan="2">SOUND MENU</td><td colspan="2">FEATURE MENU</td></tr>
<tr><td>BALANCE</td><td>CENTER</td><td>SLEEP TIMER</td><td>OFF</td></tr>
<tr><td>BASS</td><td>↑</td><td>CHILD LOCK</td><td>OFF</td></tr>
<tr><td>TREBLE</td><td>↑</td><td>LANGUAGE</td><td>ENGLISH</td></tr>
<tr><td>EFFECT</td><td>OFF</td><td>AV-2 OUTPUT</td><td>TV</td></tr>
<tr><td colspan="2">PICTURE MENU</td><td colspan="2">INSTALL</td></tr>
<tr><td>BRIGHTNESS</td><td rowspan="6">These adjust are automatically restored when APS bit in Service menu is set.
The procedure for setting APS bit is described bellow.</td><td>PROGRAMME</td><td rowspan="6">Refer to the INSTRUCTION BOOK.</td></tr>
<tr><td>CONTRAST</td><td>BAND</td></tr>
<tr><td>COLOUR</td><td>CHANNEL</td></tr>
<tr><td>SHARPNESS</td><td>SEARCH</td></tr>
<tr><td>HUE (only NTSC)</td><td>FINE TUNING</td></tr>
<tr><td>PICTURE MODE</td><td>AUTO</td><td>STORE</td></tr>
</table>

■ SETTING APS BIT IN SERVICE MENU

1) Enter service menu in TV mode by pressing “INFORMATION” and “MUTING” keys simultaneously. Service Menu will appear.
2) Select TX1(TELETEXT OPTION) by pressing Up/Down keys on remote control unit.
3) Press the 7 key on remote control unit to set APS bit. (After this, bit 7 of TX1 will be “1”). (Do not change any other bit.)
4) Press STANDARD key on remote control unit to exit service mode.
   NOTE : DO NOT TURN OFF THE TV BY USING POWER BUTTON ON THE FRONT PANEL.

SERVICE ADJUSTMENTS

ADJUSTMENT PREPARATION

1. **You can make the necessary adjustments for this unit with either the Remote Control Unit or with the adjustment tools and parts as given below.**
2. **Adjustment with the Remote Control Unit is made on the basis of the initial setting values, however, the new setting values which set the screen to its optimum condition may differ from the initial settings.**
3. Make sure that AC power is turned on correctly.
4. Turn on the power for set and test equipment before use, and start the adjustment procedures after waiting at least 30 minutes.
5. Unless otherwise specified, prepare the most suitable reception or input signal for adjustment.
6. Never touch any adjustment parts which are not specified in the list for this adjustment - variable resistors, transformers, condensers, etc.
7. Presetting before adjustment.
   Unless otherwise specified in the adjustment instructions, preset the following functions with the remote control unit.

BRIGHTNESS	CENTER
CONTRAST	
COLOUR	
SHARPNESS	

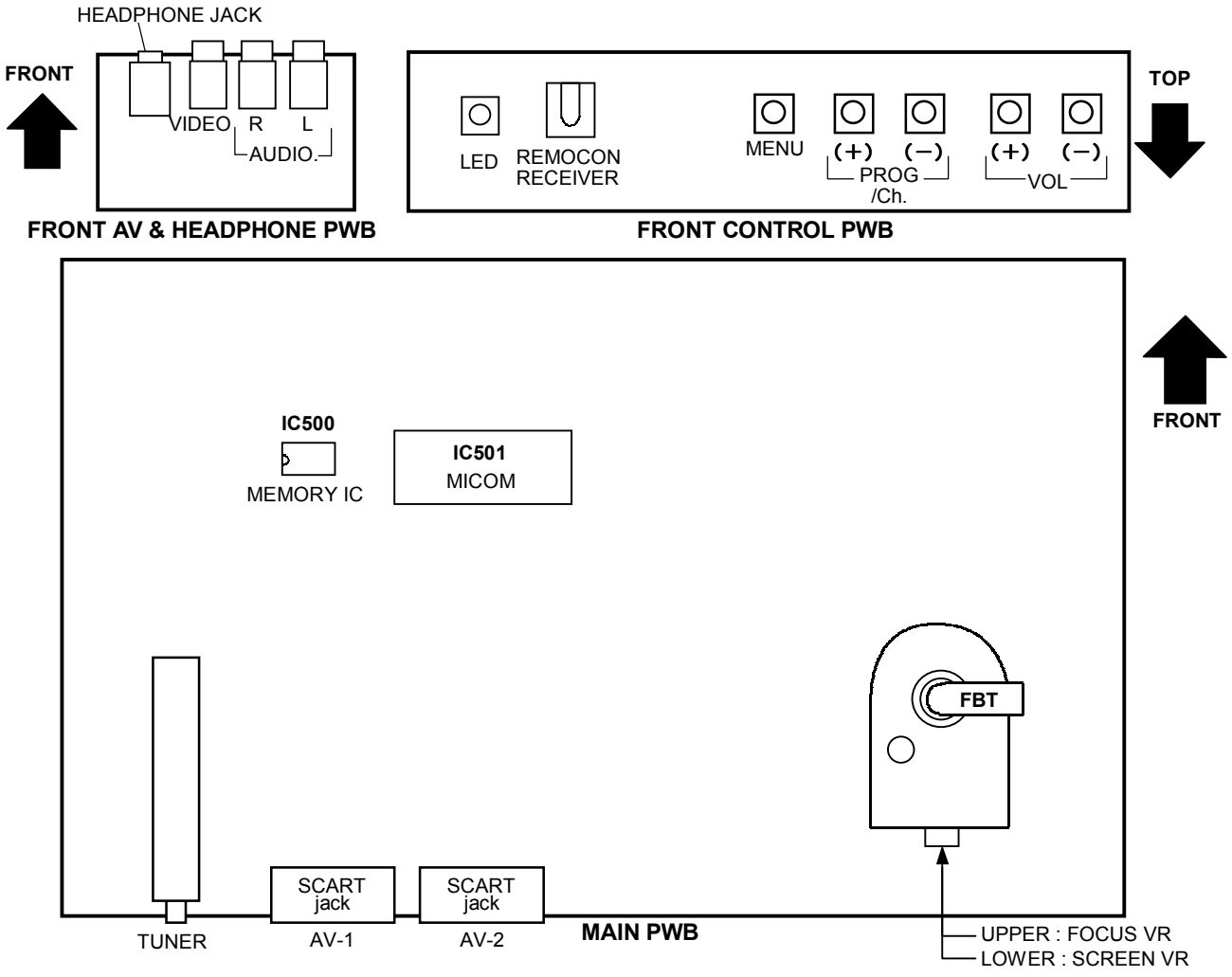
ADJUSTMENT EQUIPMENT

1. DC voltmeter (or digital voltmeter)
2. Signal generator (Pattern generator) [PAL/SECAM/NTSC]
3. Remote control unit

ADJUSTMENT ITEM

- SCREEN ADJUSTMENT
- OSD HORIZONTAL POSITION ADJUSTMENT
- IF ADJUSTMENT
- AGC AUTOMATICALLY ADJUSTMENT
- DEFLECTION CIRCUIT ADJUSTMENT
- GEOMETRY MENU ADJUSTMENT
- WHITE BALANCE ADJUSTMENT
- TXT BRIGHTNESS ADJUSTMENT

MAIN PARTS LOCATIONS



BASIC OPERATION SERVICE MENU

■ HOW TO ENTER THE SERVICE MENU

1) Press the **MENU** key.
2) MENU screen of fig.1 will be displayed

MENU SCREEN

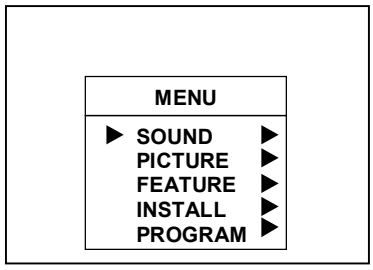


Fig.1

3) While the MENU screen is displayed , press the 4,7,2,5 key or INFORMATION key and MUTING key simultaneously.
4) The SERVICE MENU screen (Fig.2) will be displayed.

SERVICE MENU

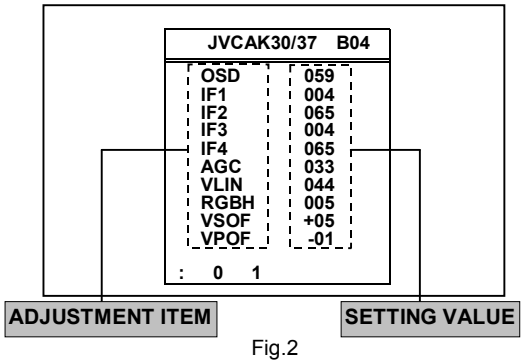


Fig.2

■ SELECTION OF ADJUSTMENT ITEMS

1) Enter the SERVICE MENU
2) Press the FUNCTION ▲/▼ key and select the ADJUSTMENT ITEM.
3) Press the FUNCTION ◀/▶ key and set the SETTING VALUE.

■ HOW TO EXIT SERVICE MODE

1) Press the **STANDARD** Key on REMOTE CONTROL UNIT.

■ HOW TO ENTER THE GEOMETRY MENU

- This model is built-in GEOMETRY MENU for geometry adjustment. For details, refer to the adjustment.

1) Enter the SERVICE MENU
2) Press the GREEN key, geometry menu appears (Fig. 3).
3) Press the FUNCTION ▲/▼ key and select the ADJUSTMENT ITEM.
4) Press the FUNCTION ◀/▶ key and set the SETTING VALUE.

GEOMETRY MENU

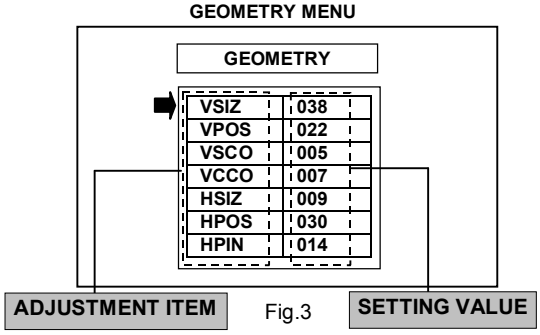
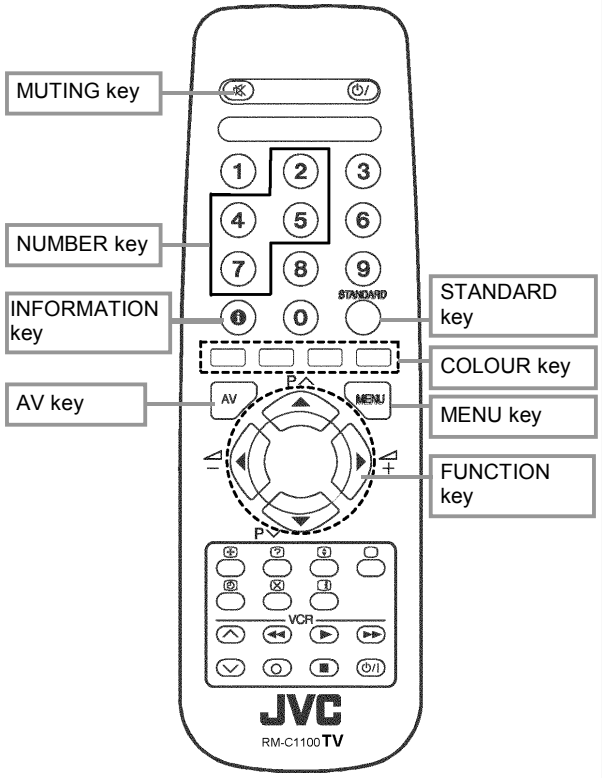


Fig.3

REMOTE CONTROL UNIT key NAME



- **FUNCTION OF COLOUR key**

RED key :

It switches the AVL(Automatic volume control) to ON or OFF mode on service menu. AVL word is visible on service menu when AVL is on.

GREEN key :

It switches to GEOMETRY adjust menu. Geometry of the picture is adjusted in this menu.

YELLOW key :

It switches to VERTICAL SCAN DISABLE mode. It is useful to adjust screen voltage.

BLUE key :

It is used to adjust AGC and IF automatically on service menu.

■ ADJUSTMENT ITEM & INITIAL SETTING VALUE in the SERVICE MENU

ADJUSTMENT ITEM	DESCRIPTION	INITIAL VALUE
OSD	HORIZONTAL POSITION OF OSD	059
IF1	IF COARSE ADJUSTMENT	004
IF2	IF FINE ADJUSTMENT	065
IF3	IF COARSE ADJUSTMENT FOR L-PRIME	004
IF4	IF FINE ADJUSTMENT FOR L-PRIME	065
AGC	AUTOMATIC GAIN CONTROL	Automatically
VLIN	VERTICAL LINEARITY	Not used
RGBH	RGB MODE HORIZONTAL SHIFT OFFSET	005
VSOF	VERTICAL SIZE OFFSET for 60Hz	+05
VPOF	VERTICAL POSITION OFFSET for 60Hz	-01
HSOF	HORIZONTAL SIZE OFFSET for 60Hz	-02
HPOF	HORIZONTAL POSITION OFFSET for 60Hz	-06
HTOF	HORIZONTAL TRAPEZOID OFFSET for 60Hz	-03
WR	WHITE POINT ADJUSTMENT FOR RED	030
WG	WHITE POINT ADJUSTMENT FOR GREEN	030
WB	WHITE POINT ADJUSTMENT FOR BLUE	030
BR	BIAS FOR RED	028
BG	BIAS FOR GREEN	029
APR	AUTOMATIC RGB PEAK REGULATION THRESHOLD	004
BRI	BRIGHTNESS	032
CON	CONTRAST	033
COL	COLOUR	030
SHR	SHARP	006
HUE	HUE	031
VOL	VOLUME	009
WR-R	WHITE POINT ADJUSTMENT for RED (RGBmode)	022
WG-R	WHITE POINT ADJUSTMENT for GREEN (RGBmode)	032
WB-R	WHITE POINT ADJUSTMENT for BLUE (RGBmode)	022
FMP1	FM PRESCALER WHEN AVL IS OFF	Not used
NIP1	NICAM PRESCALER WHEN AVL IS OFF	Not used
SCP1	SCART PRESCALER WHEN AVL IS OFF	Not used
SEC1	SECAM PRESCALER WHEN AVL IS OFF	Not used
FMP2	FM PRESCALER WHEN AVL IS ON	015
NIP2	NICAM PRESCALER WHEN AVL IS ON	045
SCP2	SCART PRESCALER WHEN AVL IS ON	017
SEC2	SECAM PRESCALER WHEN AVL IS ON	Not used
F1H	HIGH BYTE OF VHF1-VHF3 CROSS-OVER FREQUENCY	00001001
F1L	LOW BYTE OF VHF1-VHF3 CROSS-OVER FREQUENCY	10010010
F2H	HIGH BYTE OF VHF3-UHF CROSS-OVER FREQUENCY	00011011
F2L	LOW BYTE OF VHF3-UHF CROSS-OVER FREQUENCY	10000010
BS1	BAND SWITCHING BYTE FOR VHF1	00000011
BS2	BAND SWITCHING BYTE FOR VHF3	00000110
BS3	BAND SWITCHING BYTE FOR UHF	10000101
CB	CONTROL BYTE	10001110

ADJUSTMENT ITEM	DESCRIPTION	INITIAL VALUE
OP1	PERIPHERAL OPTIONS	11110111
OP2	RECEPTION STANDARD OPTIONS	00001001 (EN) 01011001 (EP) 00011001 (EE)
OP3	VIDEO OPTIONS	01101100(EN) 11101100(EP/EE)
OP4	TV FEATURES	10001000
OP5	CHANNEL TABLES	0000000D
TX1	TELETEXT OPTIONS	11010101 (EN) 11000101 (EP) 11001101 (EE)
GEOM	GEOMETRY OPTIONS	00100000
OP8	PIP PRESET CHANGE	00000100

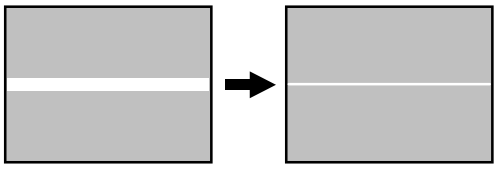
[GEOMETRY MENU]

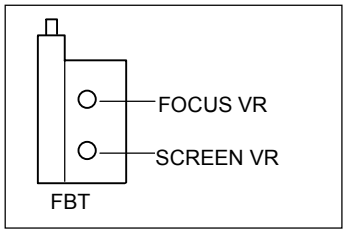
ADJUSTMENT ITEM	DESCRIPTION	INITIAL VALUE	
		4:3 MODE	16:9 MODE
VSIZ	VERTICAL SIZE for 50Hz	038	009
VPOS	VERTICAL POSITION for 50Hz	022	025
VSCO	VERTICAL S-CORRECTION for 50Hz	005	005
VCCO	VERTICAL CORNER CORRECTION for 50Hz	007	007
HSIZ	HORIZONTAL SIZE for 50Hz	009	013
HPOS	HORIZONTAL POSITION for 50Hz	030	030
HPIN	HORIZONTAL PINCUSHION for 50Hz	014	012
HCCO	HORIZONTAL CORNER CORRECTION for 50Hz	010	010
HTRP	HORIZONTAL TRAPEZOID for 50Hz	013	018
VZSZ	VERTICAL ZOOM SIZE for 50Hz	Not used	Not used

ADJUSTMENTS

■ SCREEN ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
SCREEN adjustment	**Remote control unit**		**SCREEN VR [On the FBT]**	1. Enter SERVICE MENU. 2. Press YELLOW key to disable vertical scan. 3. Adjust SCREEN VR. on the FBT as thin as possible. 4. Press YELLOW key again to enable vertical scan. 5. Press STANDARD key to leave service menu.

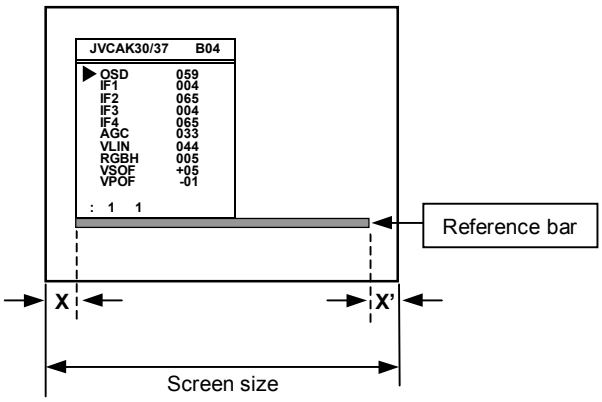




■ OSD HORIZONTAL POSITION ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
HORIZONTAL POSITION OF OSD adjustment	**Remote control unit**		**OSD**	1. Enter SERVICE MENU. 2. Select OSD (On screen display) with FUNCTION (▲/▼) key 3. Adjust the OSD horizontal position with the FUNCTION (◀/▶) key, which shifts the reference bar on the bottom of the SERVICE MENU horizontally, so that the OSD is positioned on the screen center. (**X=X'**)

SERVICE MENU SCREEN



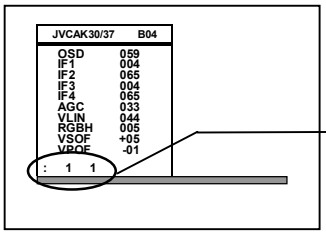
■ IF ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
IF adjustment	**Remote control unit**		**IF 1** **IF 2** **IF 3** **IF 4**	1. Receive a PAL colour bar pattern. 2. Enter SERVICE MENU. 3. Select IF 1 with FUNCTION (▲/▼) key 4. Press BLUE key during IF 1 is highlighted, IF 1 and IF 2 values are adjusted automatically by software. 5. If the standard is L-prime, IF 3 and IF 4 values are adjustment automatically when BLUE key is pressed during IF 1 is highlighted.

■ AGC AUTOMATICALLY ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
AGC AUTOMATIC-ALLY adjustment & check	**Remote control unit**		**AGC**	1. Enter SERVICE MENU. 2. Receive a 60dB μV RF signal level. 3. Select AGC with the FUNCTION (▲/▼) key. 4. Press BLUE key on the remote control unit. 5. Then the adjustment will be done automatically by software. 6. See the AGC indicator on SERVICE MENU, it must be "1". 7. Check that picture is normal at 90dB μV signal level.

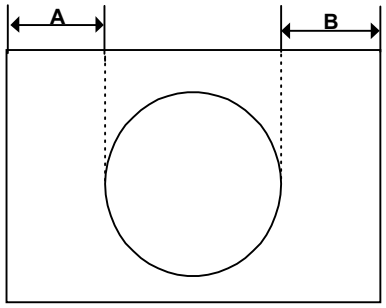
SERVICE MENU SCREEN



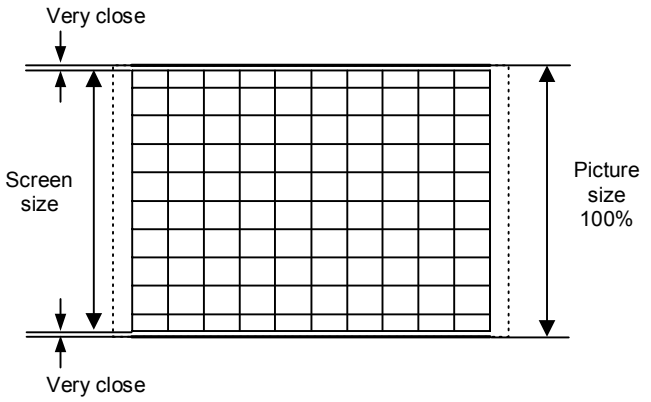
:	1	1
IF INDICATOR	**AGC INDICATOR**	**NONE**

■ DEFLECTION CIRCUIT ADJUSTMENT

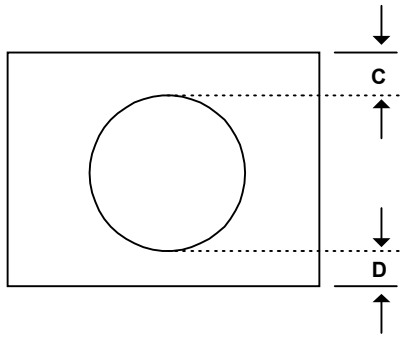
Item	Measuring instrument	Test point	Adjustment part	Description
RGB MODE HORIZONTAL SHIFT OFFSET adjustment	**Signal generator** **Remote control unit**		**RGBH**	1. Input R/G/B circle pattern signal via video input terminal. 2. Press AV key on the remote control unit, force the TV to RGB mode. 3. Enter SERVICE MENU. 4. Select RGBH (RGB mode horizontal shift) with the FUNCTION (▲/▼) key. 5. Adjust RGBH with the FUNCTION (◀/▶) key until the circle pattern is horizontally centered.(**A=B**) 6. Check and readjust RGBH item if the adjustment becomes improper after some other geometric adjustments are done.

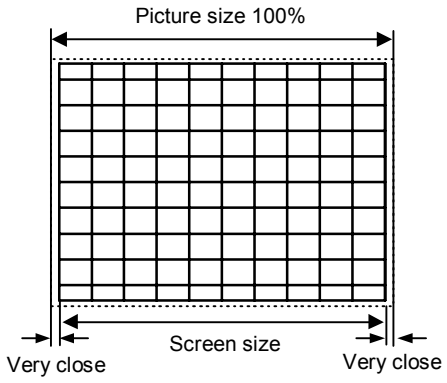


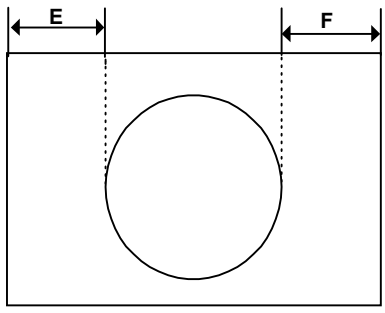
VERTICAL SIZE OFFSET adjustment (60Hz)	**Signal generator** **Remote control unit**		**VSOF**	1. Receive a NTSC-M cross-hatch pattern of vertical frequency 60Hz. 2. Enter SERVICE MENU. 3. Select VSOF (Vertical size) with the FUNCTION (▲/▼) key. 4. Adjust VSOF with the FUNCTION (◀/▶) key until the horizontal black lines on both the upper and lower part of the pattern become very close to the upper and lower horizontal sides of picture size and nearly about to disappear. 5. Check and readjust VSOF item if the adjustment becomes improper after some other geometric adjustments are done.



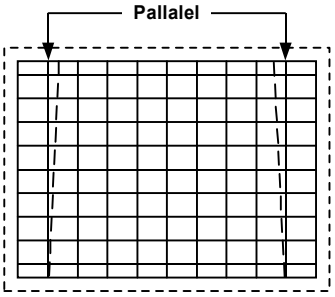
Item	Measuring instruments	Test point	Adjustment part	Description
VERTICAL POSITION OFFSET adjustment (60Hz)	**Signal generator** **Remote control unit**		**VPOF**	1. Receive a NTSC-M circle pattern of vertical frequency 60Hz. 2. Enter SERVICE MENU. 3. Select VPOF (Vertical position) with the FUNCTION (▲/▼) key. 4. Adjust VPOF with the FUNCTION (◀/▶) key until the picture is vertically centered.(**C=D**) 5. Check and readjust vertical position item if the adjustment becomes improper after some other geometric adjustments are done.
HORIZONTAL SIZE OFFSET adjustment (60Hz)	**Signal generator** **Remote control unit**		**HSOF**	1. Receive a NTSC-M cross-hatch pattern of vertical frequency 60Hz. 2. Enter SERVICE MENU. 3. Select HSOF (Horizontal size) with the FUNCTION (▲/▼) key. 4. Adjust HSOF with the FUNCTION (◀/▶) key until the vertical black lines on both the left and right part of the pattern become very close to the left and right vertical sides of picture size and nearly about to disappear. 5. Check and readjust a HSOF item if the adjustment becomes improper after some other geometric adjustments are done.
HORIZONTAL POSITION OFFSET adjustment (60Hz)	**Signal generator** **Remote control unit**		**HPOF**	1. Receive a NTSC-M circle pattern signal of vertical frequency 60Hz. 2. Enter SERVICE MENU. 3. Select HPOF (Horizontal position) with the FUNCTION (▲/▼) key. 4. Adjust HPOF with the FUNCTION (◀/▶) key until the circle pattern is horizontally centered.(**E=F**) 6. Check and readjust a horizontal position item if the adjustment becomes improper after some other geometric adjustments are done.





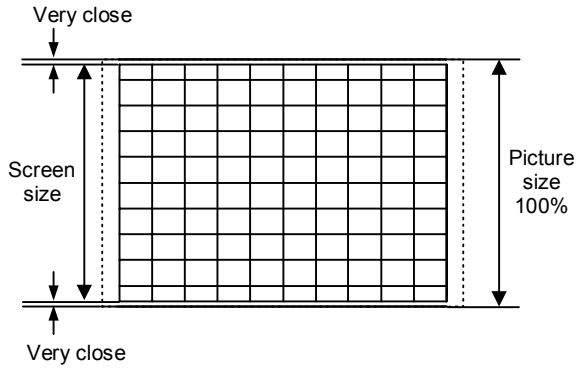


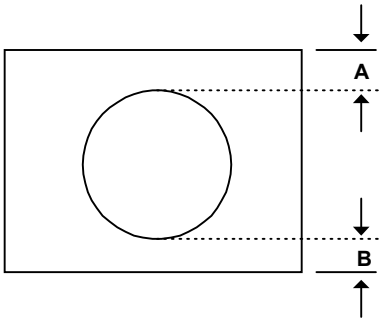
Item	Measuring instruments	Test point	Adjustment part	Description
HORIZONTAL TRAPEZOID **OFFSET adjustment (60Hz)**	**Signal generator** **Remote control unit**		**HTOF**	1. Receive a NTSC-M cross-hatch pattern signal of vertical frequency 60Hz. 2. Enter SERVICE MENU. 3. Select HTOF with the FUNCTION (▲/▼) key. 4. Adjust HTOF with the FUNCTION (◀/▶) key until both lengths of the upper side and lower side of the closs-hatch pattern become equal.



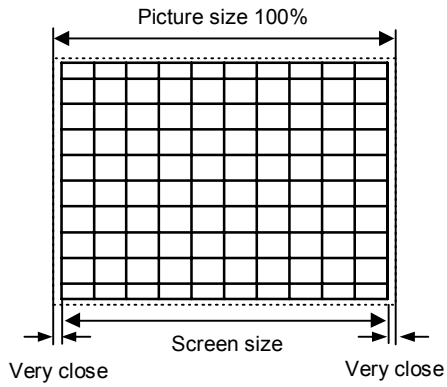
■ GEOMETRY MENU ADJUSTMENT (Adjust 4:3MODE / 16:9MODE respectively)

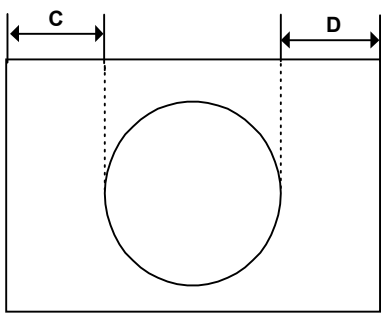
Item	Measuring instruments	Test point	Adjustment part	Description
VERTICAL SIZE adjustment (50Hz)	**Signal generator** **Remote control unit**		**VSIZ**	1. Receive a PAL B/G cross-hatch pattern of vertical frequency 50Hz. 2. Enter SERVICE MENU. 3. Press the GREEN key on the remove control unit then enter the GEOMETRY MENU. 4. Select VSIZ (Vertical size) with the FUNCTION (▲/▼) key. 5. Adjust VSIZ with the FUNCTION (◀/▶) key until the horizontal black lines on both the upper and lower part of the pattern become very close to the upper and lower horizontal sides of picture size and nearly about to disappear. 6. Check and readjust VSIZ item if the adjustment becomes improper after some other geometric adjustments are done.
VERTICAL POSITION adjustment (50Hz)	**Signal generator** **Remote control unit**		**VPOS**	1. Receive a PAL B/G circle pattern signal of vertical frequency 50Hz. 2. Enter GEOMETRY MENU. 3. Select VPOS (Vertical position) with the FUNCTION (▲/▼) key. 4. Adjust VPOS with the FUNCTION (◀/▶) key until the circle pattern is vertically centered.(**A=B**) 5. Check and readjust VPOS item if the adjustment becomes improper after some other geometric adjustments are done.
VERTICAL S-CORREC-TION adjustment (50Hz)	**Signal generator** **Remote control unit**		**VSCO**	1. Receive a PAL B/G cross-hatch pattern signal of vertical frequency 50Hz. 2. Enter GEOMETRY MENU. 3. Select VSCO (Vertical s-correction) with the FUNCTION (▲/▼) key. 4. Adjust VSCO with the FUNCTION (◀/▶) key until the vertical length of the center squarer of the cross-hatch pattern becomes equal to upper and lower part squares of the cross-hatch pattern. 5. Check and readjust VSCO item if the adjustment becomes improper after some other geometric adjustments are done.



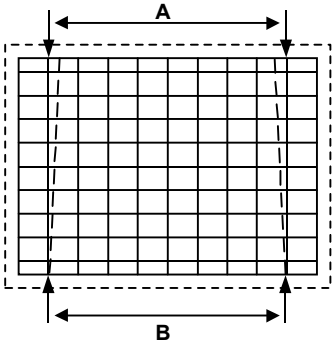


Item	Measuring instrument	Test point	Adjustment part	Description
VERTICAL CORNER CORRECTION adjustment (50Hz)	**Signal generator** **Remote control unit**		**VCCO**	1. Receive a PAL B/G cross-hatch pattern signal of vertical frequency 50Hz. 2. Enter GEOMETRY MENU. 3. Select VCCO (Vertical corner correction) with the FUNCTION (▲/▼) key. 4. Adjust VCCO with the FUNCTION (◀/▶) key until the vertical length of the upper and lower part squares of the cross-hatch pattern become equal to each other. 5. Check and readjust VCCO item if the adjustment becomes improper after some other geometric adjustments are done.
HORIZONTAL SIZE adjustment (50Hz)	**Signal generator** **Remote control unit**		**HSIZ**	1. Receive a PAL B/G cross-hatch pattern signal of vertical frequency 50Hz. 2. Enter GEOMETRY MENU. 3. Select HSIZ (Horizontal size) with the FUNCTION (▲/▼) key. 4. Adjust HSIZ with the FUNCTION (◀/▶) key until the vertical black lines on both the left and right part of the cross-hatch pattern become very close to the left and right horizontal sides of picture tube and nearly about to disappear.
HORIZONTAL POSITION adjustment (50Hz)	**Signal generator** **Remote control unit**		**HPOS**	1. Receive a PAL B/G circle pattern signal of vertical frequency 50Hz. 2. Enter GEOMETRY MENU. 3. Select HPOS (Horizontal position) with the FUNCTION (▲/▼) key. 4. Adjust HPOS with the FUNCTION (◀/▶) key until the circle pattern is horizontally centered.(**C=D**) 5. Check and readjust HPOS item if the adjustment becomes improper after some other geometric adjustments are done.





Item	Measuring instrument	Test point	Adjustment part	Description
HORIZONTAL PINCUSHION adjustment (50Hz)	**Signal generator** **Remote control unit**		**HPIN**	1. Receive a PAL B/G cross-hatch pattern signal of vertical frequency 50Hz. 2. Enter GEOMETRY MENU. 3. Select HPIN (Horizontal pincushion) with the FUNCTION (▲/▼) key. 4. Adjust HPIN with the FUNCTION (◀/▶) key until the bending of the vertical line of the cross-hatch pattern are corrected. 5. Check and readjust HPIN item if the adjustment becomes improper after some other geometric adjustments are done.
HORIZONTAL CORNER CORRECTION adjustment (50Hz)	**Signal generator** **Remote control unit**		**HCCO**	1. Receive a PAL B/G cross-hatch pattern signal of vertical frequency 50Hz. 2. Enter GEOMETRY MENU. 3. Select HCCO (Horizontal corner correction) with the FUNCTION (▲/▼) key. 4. Adjust HCCO with the FUNCTION (◀/▶) key until the bending of the vertical line of the cross-hatch pattern are corrected. 5. Check and readjust HCCO item if the adjustment becomes improper after some other geometric adjustments are done.
HORIZONTAL TRAPEZOID adjustment (50Hz)	**Signal generator** **Remote control unit**		**HTRP**	1. Receive a PAL B/G cross-hatch pattern signal of vertical frequency 50Hz. 2. Enter GEOMETRY MENU. 3. Select HTRP (Horizontal trapezoid) with the FUNCTION (▲/▼) key. 4. Adjust HTRP with the FUNCTION (◀/▶) key until both lengths of the upper side and lower side of the cross-hatch pattern become equal.(**A=B**)



■ WHITE BALANCE ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
WHITE BALANCE adjustment (Low light)	**Signal generator** **Remote control unit**		**WR** **WG** **WB**	1. Receive a black & white signal (colour off). 2. Enter SERVICE MENU. 3. Select WR / WG / WB with the (▲/▼) key, respectively. 4. Adjust WR / WG / WB with the FUNCTION (◀/▶) key, respectively, until the white part turns to pure white without any other colour.
WHITE BALANCE adjustment (High light)	**Signal generator** **Remote control unit**		**BR** **BG**	1. Receive a black & white signal (colour off) 2. Enter SERVICE MENU. 3. Select BR / BG with the FUNCTION (▲/▼) key respectively. 4. Adjust BR / BG with the FUNCTION (◀/▶) key respectively, until the white part of screen make white colour.

Item	WR	WG	WB
Initial setting value	030	030	030

Item	BR	BG
Initial setting value	028	029

■ TXT BRIGHTNESS ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
TELETEXT BRIGHTNESS adjustment	**Remote control unit**			1. Receive a teletext broadcast. 2. Enter the SERVICE MENU. 3. Press the TELETEXT key on the remote control unit, then change TXT brightness. 4. Adjust the TXT brightness with FUNCTION (◀/▶) key. 5. Press the TELETEXT key again. You can return to the SERVICE MENU.

	TXT BRIGHTNESS
Recommended value	025

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[AV-29BF11EPS]

- MAIN P.W. BOARD ASS'Y ····· 31
- CRT SOCKET P.W. BOARD ASS'Y ····· 30
- FRONT AV & HEADPHONE P.W. BOARD ASS'Y ····· 30
- FRONT CONTROL P.W. BOARD ASS'Y ····· 30

[AV-29BF11EES]

- MAIN P.W. BOARD ASS'Y ····· 35
- CRT SOCKET P.W. BOARD ASS'Y ····· 30
- FRONT AV & HEADPHONE P.W. BOARD ASS'Y ····· 30
- FRONT CONTROL P.W. BOARD ASS'Y ····· 30

■ PACKING / PACKING PARTS LIST ····· 39

USING P.W. BOARD & REMOTE CONTROL UNIT

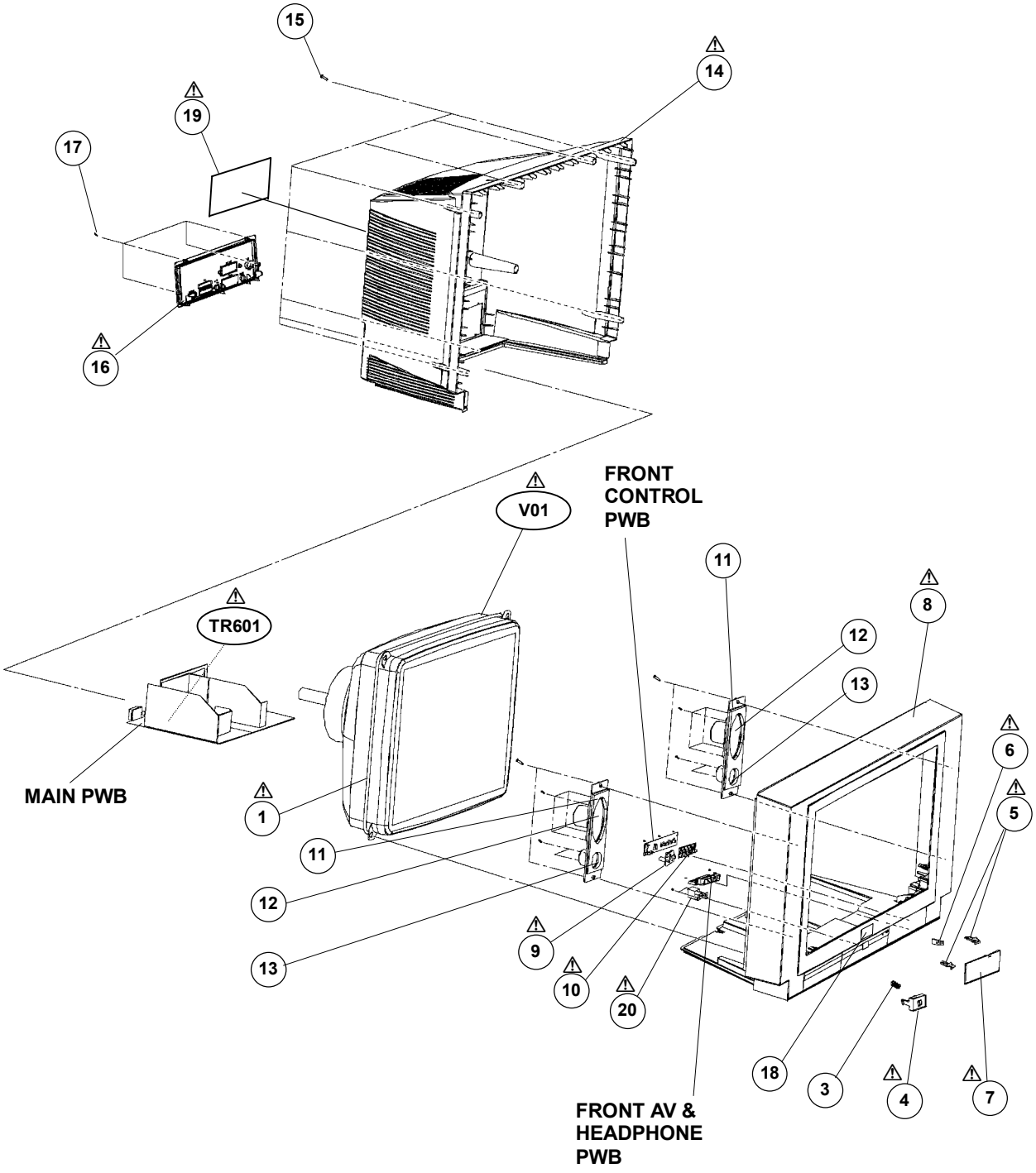
Model / PWB ASS'Y	AV-29BF11ENS	AV-29BF11EPS	AV-29BF11EES
MAIN PWB	VE-20103272	VE-20103267	VE-20103265
CRT SOCKET PWB	VE-20094670	←	←
FRONT AV & HEADPHONE PWB	VE-20083646	←	←
FRONT CONTROL PWB	VE-20100168	←	←
REMOTE CONTROL UNIT	VE-30017763 (RM-C1100)	←	←

EXPLODED VIEW PARTS LIST

[AV-29BF11ENS, AV-29BF11EPS, AV-29BF11EES]

⚠	Ref.No.	Part No.	Part Name	Description
⚠	V01	VE-20098924	CRT KIT	Inc. DEG COIL(VE-30012971), CONN.ASSY,SPRING
⚠	TR601	VE-30017522	FBT	
⚠	1	VE-30012971	DEG COIL&EARTH CB.	
	3	VE-35000013	SPRING(ON/OFF SWITCH)	
⚠	4	VE-20059930	BUTTON(ON/OFF)	
⚠	5	VE-20003605	PIN(CONTROL PANEL DOOR)	(×2)
⚠	6	VE-40000026	EJECTOR CLIP-CLAP	
⚠	7	VE-20102640	CONTROL PANEL DOOR	
⚠	8	VE-20103272	FRONT PANEL	
⚠	9	VE-20081212	LENS LED	
⚠	10	VE-20082371	BUTTON FUNCTION	
	11	VE-40009351	SPONGE	(×2)
	12	VE-30001950	SPEAKER(8R 15W)	(×2)
	13	VE-30001947	TWEETER(8R 15W)	(×2)
⚠	14	VE-20097423	BACK COVER(REAR COVER)	
	15	VE-35004572	SCREW	(×8)
⚠	16	VE-20067720	BACK DOOR(TERMINAL BOARD)	
	17	VE-35000211	SCREW	(×4)
	18	VE-40009154	JVC LOGO	
⚠	19	VE-20103656	LABEL	[AV-29BF11ENS]
⚠	19	VE-20103677	LABEL	[AV-29BF11ENS(for GER models)]
⚠	19	VE-20103679	LABEL	[AV-29BF11ENS(for ITA models)]
⚠	19	VE-20103654	LABEL	[AV-29BF11EPS]
⚠	19	VE-20103640	LABEL	[AV-29BF11EES]
⚠	19	VE-20103638	LABEL	[AV-29BF11EES(for POL models)]
⚠	20	VE-30002174	MAIN SWITCH (ON/OFF)	
⚠	--	VE-30016513	POWER CORD	2.2MT(W/FILTER)
⚠	--	VE-50025747	WARNING LABEL(HUN)	[AV-29BF11EES]

EXPLODED VIEW



PRINTED WIRING BOARD PARTS LIST

[AV-29BF11ENS]

MAIN P.W. BOARD ASS'Y (VE-20103272)

⚠	Symbol No.	Part No.	Part Name	Description
	VARIABLE RESISTOR			
	VR800	VE-30001064	RES ADJ	1/10W 470R VER (MAN)
	RESISTOR			
	R102	VE-30012657	SMD RES.	1/16W 1K J
	R103	VE-30012657	SMD RES.	1/16W 1K J
	R106	VE-30012713	SMD RES.	1/16W 75R J
	R107	VE-30012649	SMD RES.	1/16W 150R J
	R109	VE-30012713	SMD RES.	1/16W 75R J
	R110	VE-30012713	SMD RES.	1/16W 75R J
	R111	VE-30012649	SMD RES.	1/16W 150R J
	R113	VE-30012713	SMD RES.	1/16W 75R J
	R114	VE-30012713	SMD RES.	1/16W 75R J
	R115	VE-30012713	SMD RES.	1/16W 75R J
	R117	VE-30000792	CF RES.	1/4W 75R J
	R118	VE-30012713	SMD RES.	1/16W 75R J
	R121	VE-30012649	SMD RES.	1/16W 150R J
	R122	VE-30000792	CF RES.	1/4W 75R J
	R123	VE-30000792	CF RES.	1/4W 75R J
	R124	VE-30012649	SMD RES.	1/16W 150R J
	R126	VE-30012657	SMD RES.	1/16W 1K J
	R129	VE-30012713	SMD RES.	1/16W 75R J
	R135	VE-30012657	SMD RES.	1/16W 1K J
	R137	VE-30000466	CF RES.	1/4W 1K J
	R138	VE-30012657	SMD RES.	1/16W 1K J
	R139	VE-30012713	SMD RES.	1/16W 75R J
	R141	VE-30012657	SMD RES.	1/16W 1K J
	R145	VE-30012713	SMD RES.	1/16W 75R J
	R149	VE-30012703	SMD RES.	1/16W 56K J
	R151	VE-30012696	SMD RES.	1/16W 47K J
	R152	VE-30000752	CF RES.	1/4W 56K J
	R153	VE-30012657	SMD RES.	1/16W 1K J
	R154	VE-30000723	CF RES.	1/4W 47K J
	R155	VE-30012649	SMD RES.	1/16W 150R J
	R169	VE-30012703	SMD RES.	1/16W 56K J
	R171	VE-30012713	SMD RES.	1/16W 75R J
	R172	VE-30012692	SMD RES.	1/16W 4.7K J
	R174	VE-30012713	SMD RES.	1/16W 75R J
	R175	VE-30012713	SMD RES.	1/16W 75R J
	R176	VE-30012703	SMD RES.	1/16W 56K J
	R201	VE-30012674	SMD RES.	1/16W 27K J
	R202	VE-30012692	SMD RES.	1/16W 4.7K J
	R204	VE-30000459	CF RES.	1/4W 100R J
	R206	VE-30000459	CF RES.	1/4W 100R J
	R319	VE-30014076	SMD RES.	1/16W 4.7R J
	R320	VE-30014076	SMD RES.	1/16W 4.7R J
	R324	VE-30012667	SMD RES.	1/16W 220K J
	R328	VE-30012649	SMD RES.	1/16W 150R J
	R329	VE-30012692	SMD RES.	1/16W 4.7K J
	R332	VE-30012641	SMD RES.	1/16W 10K J
	R333	VE-30012702	SMD RES.	1/16W 560R J
	R338	VE-30012641	SMD RES.	1/16W 10K J
	R340	VE-30012644	SMD RES.	1/16W 12K J
	R341	VE-30012702	SMD RES.	1/16W 560R J
	R343	VE-30012659	SMD RES.	1/16W 2.2K J
	R370	VE-30012669	SMD RES.	1/16W 22K J
	R371	VE-30012669	SMD RES.	1/16W 22K J
	R391	VE-30012696	SMD RES.	1/16W 47K J
	R417	VE-30012510	SMD RES.	1/16W 100R J
	R418	VE-30012510	SMD RES.	1/16W 100R J
	R419	VE-30012649	SMD RES.	1/16W 150R J
	R420	VE-30000466	CF RES.	1/4W 1K J
	R421	VE-30012650	SMD RES.	1/16W 15K J
	R422	VE-30012659	SMD RES.	1/16W 2.2K J
	R423	VE-30012712	SMD RES.	1/16W 8.2K J
	R425	VE-30012510	SMD RES.	1/16W 100R J
	R426	VE-30012659	SMD RES.	1/16W 2.2K J
	R427	VE-30012674	SMD RES.	1/16W 27K J
	R428	VE-30012510	SMD RES.	1/16W 100R J
	R430	VE-30012702	SMD RES.	1/16W 560R J
	R431	VE-30012674	SMD RES.	1/16W 27K J
	R432	VE-30012707	SMD RES.	1/16W 680R J
	R433	VE-30012683	SMD RES.	1/16W 330K J
	R437	VE-30000466	CF RES.	1/4W 1K J
	R438	VE-30000466	CF RES.	1/4W 1K J
	R439	VE-30012657	SMD RES.	1/16W 1K J
	R440	VE-30012714	SMD RES.	1/16W 820R J
	R441	VE-30012674	SMD RES.	1/16W 27K J
	R442	VE-30000466	CF RES.	1/4W 1K J
	R446	VE-30012714	SMD RES.	1/16W 820R J

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R447	VE-30012714	SMD RES.	1/16W 820R J
	R448	VE-30012683	SMD RES.	1/16W 330K J
	R450	VE-30012702	SMD RES.	1/16W 560R J
	R458	VE-30012510	SMD RES.	1/16W 100R J
	R459	VE-30012668	SMD RES.	1/16W 220R J
	R460	VE-30012668	SMD RES.	1/16W 220R J
	R461	VE-30012668	SMD RES.	1/16W 220R J
	R449	VE-30012659	SMD RES.	1/16W 2.2K J
	R462	VE-30012510	SMD RES.	1/16W 100R J
	R467	VE-30000670	CF RES.	1/4W 330K J
	R468	VE-30000670	CF RES.	1/4W 330K J
	R469	VE-30000628	CF RES.	1/4W 2.7K J
	R471	VE-30014022	SMD RES.	1/16W 47R J
	R472	VE-30012662	SMD RES.	1/16W 2.7K J
	R474	VE-30012662	SMD RES.	1/16W 2.7K J
	R481	VE-30000466	CF RES.	1/4W 1K J
	R482	VE-30012657	SMD RES.	1/16W 1K J
	R483	VE-30012657	SMD RES.	1/16W 1K J
	R485	VE-30012657	SMD RES.	1/16W 1K J
	R486	VE-30012657	SMD RES.	1/16W 1K J
	R487	VE-30012657	SMD RES.	1/16W 1K J
	R507	VE-30000466	CF RES.	1/4W 1K J
	R508	VE-30012510	SMD RES.	1/16W 100R J
	R509	VE-30012641	SMD RES.	1/16W 10K J
	R510	VE-30012702	SMD RES.	1/16W 560R J
	R511	VE-30012657	SMD RES.	1/16W 1K J
	R512	VE-30000495	CF RES.	1/4W 1.2K J
	R513	VE-30000459	CF RES.	1/4W 100R J
	R514	VE-30000459	CF RES.	1/4W 100R J
	R515	VE-30012659	SMD RES.	1/16W 2.2K J
	R516	VE-30012659	SMD RES.	1/16W 2.2K J
	R517	VE-30012692	SMD RES.	1/16W 4.7K J
	R518	VE-30000471	CF RES.	1/4W 10K J
	R519	VE-30012698	SMD RES.	1/16W 5.6K J
	R525	VE-30012649	SMD RES.	1/16W 150R J
	R526	VE-30012641	SMD RES.	1/16W 10K J
	R527	VE-30012692	SMD RES.	1/16W 4.7K J
	R528	VE-30012698	SMD RES.	1/16W 5.6K J
	R529	VE-30012698	SMD RES.	1/16W 5.6K J
	R530	VE-30012698	SMD RES.	1/16W 5.6K J
	R532	VE-30012659	SMD RES.	1/16W 2.2K J
	R533	VE-30012644	SMD RES.	1/16W 12K J
	R534	VE-30000628	CF RES.	1/4W 2.7K J
	R537	VE-30012641	SMD RES.	1/16W 10K J
	R538	VE-30012698	SMD RES.	1/16W 5.6K J
	R539	VE-30012659	SMD RES.	1/16W 2.2K J
	R540	VE-30012644	SMD RES.	1/16W 12K J
	R545	VE-30012644	SMD RES.	1/16W 12K J
	R548	VE-30012641	SMD RES.	1/16W 10K J
	R554	VE-30012641	SMD RES.	1/16W 10K J
	R555	VE-30012659	SMD RES.	1/16W 2.2K J
	R556	VE-30012657	SMD RES.	1/16W 1K J
	R560	VE-30012674	SMD RES.	1/16W 27K J
	R561	VE-30012692	SMD RES.	1/16W 4.7K J
	R568	VE-30000594	CF RES.	1/4W 22K J
	R572	VE-30012659	SMD RES.	1/16W 2.2K J
	R573	VE-30012641	SMD RES.	1/16W 10K J
	R574	VE-30012657	SMD RES.	1/16W 1K J
	R603	VE-30000459	CF RES.	1/4W 100R J
	R604	VE-30012510	SMD RES.	1/16W 100R J
	R606	VE-30000471	CF RES.	1/4W 10K J
	R607	VE-30000554	CF RES.	1/4W 180R J
	R608	VE-30000859	MF RES.	1/2W 1R F
	R609	VE-30000711	CF RES.	1/2W 470R J
	R610	VE-30000599	CF RES.	1/4W 220K J
	R611	VE-30012708	SMD RES.	1/16W 68K J
	R616	VE-30012685	SMD RES.	1/16W 33K J
	R617	VE-30000572	CF RES.	1/4W 2K J
	R630	VE-30012702	SMD RES.	1/16W 560R J
	R634	VE-30000633	CF RES.	1/4W 27K J
	R639	VE-30000471	CF RES.	1/4W 10K J
	R640	VE-30000628	CF RES.	1/4W 2.7K J
	R646	VE-30000775	CF RES.	1/4W 6.8K J
	R647	VE-30000466	CF RES.	1/4W 1K J
⚠	R648	VE-30001246	FUSE RES.	1W 0.47R J
	R650	VE-30012702	SMD RES.	1/16W 560R J
	R651	VE-30012668	SMD RES.	1/16W 220R J
⚠	R656	VE-30001247	FUSE RES.	1/2W 4.7R J
⚠	R657	VE-30001228	FUSE RES.	1/2W 2.2R J
	R662	VE-30012674	SMD RES.	1/16W 27K J
	R666	VE-30000531	CF RES.	1/4W 15K J

[AV-29BF11ENS]

RESISTOR

⚠	Symbol No.	Part No.	Part Name	Description
	R668	VE-30000607	CF RES.	1/4W 2.2R J
	R669	VE-30012510	SMD RES.	1/16W 100R J
	R670	VE-30012510	SMD RES.	1/16W 100R J
	R677	VE-30001124	MO RES.	3W 220R J
	R678	VE-30014022	SMD RES.	1/16W 47R J
	R680	VE-30000477	CF RES.	1/4W 100K J
	R681	VE-30012509	SMD RES.	1/16W 100K J
	R674	VE-30012662	SMD RES.	1/16W 2.7K J
⚠	R675	VE-30001208	FUSE RES.	1W 10R J
	R682	VE-30017082	WW RES.	5W 75R J RAD.
	R683	VE-30017083	WW RES.	5W 2.2K J RAD.
	R689	VE-30000718	CF RES.	1/4W 4.7K J
	R690	VE-30000466	CF RES.	1/4W 1K J
	R691	VE-30012696	SMD RES.	1/16W 47K J
	R692	VE-30012509	SMD RES.	1/16W 100K J
	R693	VE-30012708	SMD RES.	1/16W 68K J
	R694	VE-30000689	CF RES.	1/4W 3.9K J
	R695	VE-30000775	CF RES.	1/4W 6.8K J
	R696-Y	VE-30001350	ZENER DIODE	12V
	R697	VE-30000712	CF RES.	1/4W 470R J
	R698	VE-30012657	SMD RES.	1/16W 1K J
	R700	VE-30012649	SMD RES.	1/16W 150R J
	R701	VE-30000459	CF RES.	1/4W 100R J
	R703	VE-30000459	CF RES.	1/4W 100R J
	R705	VE-30000459	CF RES.	1/4W 100R J
	R715	VE-30012702	SMD RES.	1/16W 560R J
	R717	VE-30012702	SMD RES.	1/16W 560R J
	R719	VE-30012657	SMD RES.	1/16W 1K J
	R721	VE-30012510	SMD RES.	1/16W 100R J
	R722	VE-30012510	SMD RES.	1/16W 100R J
	R723	VE-30012510	SMD RES.	1/16W 100R J
	R724	VE-30012510	SMD RES.	1/16W 100R J
	R801	VE-30000718	CF RES.	1/4W 4.7K J
	R803	VE-30012659	SMD RES.	1/16W 2.2K J
	R805	VE-30000650	CF RES.	1/4W 33R J
	R806	VE-30000982	MF RES.	1/4W 4.7K J
	R807	VE-30001173	MO RES.	1W 0.47R J
	R809	VE-30007784	MO RES.	5W 33K J(RADIAL)
⚠	R810	VE-30001257	MG RES.	1/2W 4.7M J
	R811	VE-30000718	CF RES.	1/4W 4.7K J
	R812	VE-30012641	SMD RES.	1/16W 10K J
	R813	VE-30000466	CF RES.	1/4W 1K J
	R814	VE-30000466	CF RES.	1/4W 1K J
	R817	VE-30000880	MF RES.	1/4W 130K F
	R818	VE-30012675	SMD RES.	1/16W 2K J
	R819	VE-30000526	CF RES.	1/4W 1.5K J
	R828	VE-30000530	CF RES.	1/2W 15K J
	R829	VE-30000530	CF RES.	1/2W 15K J
	R834	VE-30001159	MO RES.	1W 0.33R J
	R836	VE-30012662	SMD RES.	1/16W 2.7K J
	R839	VE-30000526	CF RES.	1/4W 1.5K J
	R842	VE-30014128	SMD RES.	1/16W 33R J
	R844	VE-30012641	SMD RES.	1/16W 10K J
	R845	VE-30012509	SMD RES.	1/16W 100K J
	R846	VE-30012692	SMD RES.	1/16W 4.7K J
	R847	VE-30014128	SMD RES.	1/16W 33R J
	R848	VE-30012641	SMD RES.	1/16W 10K J
	R849	VE-30012510	SMD RES.	1/16W 100R J
	R851	VE-30000718	CF RES.	1/4W 4.7K J
	R852	VE-30000650	CF RES.	1/4W 33R J
	R853	VE-30012642	SMD RES.	1/16W 120K J
	R855	VE-30000459	CF RES.	1/4W 100R J
	R856	VE-30012694	SMD RES.	1/16W 470K J
	R857	VE-30001263	WW RES.	5W 3.9R J (RAD)

CAPACITOR

C141	VE-30007081	EL CAP.	4.7UF 50V M (NPL)
C142	VE-30007081	EL CAP.	4.7UF 50V M (NPL)
C143	VE-30012589	SMD CAP.	4.7NF 50V K
C144	VE-30012589	SMD CAP.	4.7NF 50V K
C145	VE-30012589	SMD CAP.	4.7NF 50V K
C146	VE-30012589	SMD CAP.	4.7NF 50V K
C147	VE-30012589	SMD CAP.	4.7NF 50V K
C148	VE-30012589	SMD CAP.	4.7NF 50V K
C149	VE-30012589	SMD CAP.	4.7NF 50V K
C150	VE-30012589	SMD CAP.	4.7NF 50V K
C155	VE-30012560	SMD CAP.	100PF 50V J
C157	VE-30012560	SMD CAP.	100PF 50V J
C159	VE-30000352	EL CAP.	100UF 16V M
C160	VE-30000345	EL CAP.	10UF 50V M
C161	VE-30000345	EL CAP.	10UF 50V M

CAPACITOR

⚠	Symbol No.	Part No.	Part Name	Description
	C162	VE-30012573	SMD CAP.	47PF 50V J
	C164	VE-30012692	SMD RES.	1/16W 4.7K J
	C165	VE-30000413	EL CAP.	4.7UF 50V M
	C201	VE-30000400	EL CAP.	47UF 50V M
	C205	VE-30000345	EL CAP.	10UF 50V M
	C206	VE-30012610	SMD CAP.	10NF 50V J
	C207	VE-30012610	SMD CAP.	10NF 50V J
	C230	VE-30016654	SMD CAP.	100NF 16V K R
	C246	VE-30000295	CER CAP.	100NF 50V Z F
	C303	VE-30000100	MKT CAP.	330NF 63V J
	C305	VE-30012590	SMD CAP.	47NF 50V K
	C310	VE-30000345	EL CAP.	10UF 50V M
	C333	VE-30000083	MKT CAP.	150NF 63V J
	C363	VE-30000083	MKT CAP.	150NF 63V J
	C364	VE-30012590	SMD CAP.	47NF 50V K
	C366	VE-30000407	EL CAP.	470UF 16V M
	C368	VE-30012590	SMD CAP.	47NF 50V K
	C404	VE-30000190	CER CAP.	100PF 50V J CH
	C408	VE-30012586	SMD CAP.	22NF 50V K
	C409	VE-30000345	EL CAP.	10UF 50V M
	C410	VE-30000384	EL CAP.	2.2UF 50V M
	C411	VE-30000345	EL CAP.	10UF 50V M
	C412	VE-30016654	SMD CAP.	100NF 16V K R
	C413	VE-30000362	EL CAP.	1UF 50V M
	C414	VE-30012585	SMD CAP.	2.2NF 50V K R
	C415	VE-30012581	SMD CAP.	1NF 50V K R
	C416	VE-30000362	EL CAP.	1UF 50V M
	C417	VE-30000362	EL CAP.	1UF 50V M
	C418	VE-30016654	SMD CAP.	100NF 16V K R
	C419	VE-30000384	EL CAP.	2.2UF 50V M
	C420	VE-30000100	MKT CAP.	330NF 63V J
	C422	VE-30000352	EL CAP.	100UF 16V M
	C423	VE-30000352	EL CAP.	100UF 16V M
	C424	VE-30000352	EL CAP.	100UF 16V M
	C425	VE-30016654	SMD CAP.	100NF 16V K R
	C427	VE-30016654	SMD CAP.	100NF 16V K R
	C429	VE-30012589	SMD CAP.	4.7NF 50V K
	C430	VE-30016654	SMD CAP.	100NF 16V K R
	C431	VE-30000362	EL CAP.	1UF 50V M
	C432	VE-30016654	SMD CAP.	100NF 16V K R
	C433	VE-30000345	EL CAP.	10UF 50V M
	C434	VE-30016654	SMD CAP.	100NF 16V K R
	C435	VE-30016654	SMD CAP.	100NF 16V K R
	C436	VE-30000109	MKT CAP.	470NF 63V J
	C437	VE-30016654	SMD CAP.	100NF 16V K R
	C438	VE-30016654	SMD CAP.	100NF 16V K R
	C439	VE-30016654	SMD CAP.	100NF 16V K R
	C440	VE-30000295	CER CAP.	100NF 50V Z F
	C441	VE-30012582	SMD CAP.	10NF 50V K R
	C442	VE-30000109	MKT CAP.	470NF 63V J
	C443	VE-30000362	EL CAP.	1UF 50V M
	C444	VE-30000384	EL CAP.	2.2UF 50V M
	C448	VE-30012586	SMD CAP.	22NF 50V K
	C449	VE-30012560	SMD CAP.	100PF 50V J
	C453	VE-30000352	EL CAP.	100UF 16V M
	C455	VE-30000345	EL CAP.	10UF 50V M
	C459	VE-30012560	SMD CAP.	100PF 50V J
	C501	VE-30016654	SMD CAP.	100NF 16V K R
	C502	VE-30000400	EL CAP.	47UF 50V M
	C504	VE-30016654	SMD CAP.	100NF 16V K R
	C505	VE-30012589	SMD CAP.	4.7NF 50V K
	C507	VE-30000345	EL CAP.	10UF 50V M
	C510	VE-30016654	SMD CAP.	100NF 16V K R
	C511	VE-30012566	SMD CAP.	22PF 50V J
	C513	VE-30000345	EL CAP.	10UF 50V M
	C514	VE-30016654	SMD CAP.	100NF 16V K R
	C515	VE-30012560	SMD CAP.	100PF 50V J
	C517	VE-30016654	SMD CAP.	100NF 16V K R
	C518	VE-30016654	SMD CAP.	100NF 16V K R
	C519	VE-30012560	SMD CAP.	100PF 50V J
	C520	VE-30012560	SMD CAP.	100PF 50V J
	C521	VE-30012562	SMD CAP.	15PF 50V J
	C522	VE-30012562	SMD CAP.	15PF 50V J
	C523	VE-30012585	SMD CAP.	2.2NF 50V K R
	C524	VE-30012566	SMD CAP.	22PF 50V J
	C525	VE-30012566	SMD CAP.	22PF 50V J
	C526	VE-30016654	SMD CAP.	100NF 16V K R
	C527	VE-30000345	EL CAP.	10UF 50V M
	C529	VE-30012589	SMD CAP.	4.7NF 50V K
	C530	VE-30012589	SMD CAP.	4.7NF 50V K
	C532	VE-30016654	SMD CAP.	100NF 16V K R
	C536	VE-30000295	CER CAP.	100NF 50V Z F
	C541	VE-30000362	EL CAP.	1UF 50V M

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⚠	Symbol No.	Part No.	Part Name	Description
	CAPACITOR			
	C542	VE-30000107	MKT CAP.	47NF 250V J
	C543	VE-30000431	CER CAP.	100PF 1KV M
	C544	VE-30000345	EL CAP.	10UF 50V M
	C547	VE-30000345	EL CAP.	10UF 50V M
	C565	VE-30016654	SMD CAP.	100NF 16V K R
	C566	VE-30016654	SMD CAP.	100NF 16V K R
	C567	VE-30000431	CER CAP.	100PF 1KV M
	C602	VE-30017319	MKT CAP.	120NF 63V J
	C604	VE-30000356	EL CAP.	100UF 63V M
	C605	VE-30000360	EL CAP.	1000UF 25V M
	C607	VE-30012581	SMD CAP.	1NF 50V K R
⚠	C618	VE-30000168	MKP CAP.	6.2NF 1.6KV 3.5%
⚠	C621	VE-30000136	MKP CAP.	12NF 2000V %3.5
	C622	VE-30012003	MKP CAP.	18NF 630V J
	C623	VE-30000406	EL CAP.	47UF 250V M (HR)
⚠	C625	VE-30000177	MKP CAP.	820NF 250V J
	C627	VE-30000162	MKP CAP.	470NF 250V J
	C629	VE-30013003	MKP CAP.	1UF 250V J P=15
	C632	VE-30000100	MKT CAP.	330NF 63V J
	C635	VE-30000385	EL CAP.	2.2UF 250V M
	C636	VE-30000387	EL CAP.	33UF 50V M
	C640	VE-30000100	MKT CAP.	330NF 63V J
	C641	VE-30000090	MKT CAP.	22NF 100V J
	C642	VE-30000407	EL CAP.	470UF 16V M
	C644	VE-30000409	EL CAP.	470UF 25V M
	C645	VE-30000090	MKT CAP.	22NF 100V J
	C646	VE-30000100	MKT CAP.	330NF 63V J
	C647	VE-30007748	EL CAP.	1000UF 35V M
	C648	VE-30000394	EL CAP.	3.3UF 160V M
	C649	VE-30000295	CER CAP.	100NF 50V Z F
	C652	VE-30000330	CER CAP.	4.7NF 50V K B
	C653	VE-30000107	MKT CAP.	47NF 250V J
	C700	VE-30012565	SMD CAP.	1.8PF 50V J CH
	C701	VE-30012565	SMD CAP.	1.8PF 50V J CH
	C702	VE-30012576	SMD CAP.	56PF 50V J CH
	C703	VE-30012576	SMD CAP.	56PF 50V J CH
	C704	VE-30012576	SMD CAP.	56PF 50V J CH
	C705	VE-30000345	EL CAP.	10UF 50V M
	C706	VE-30000345	EL CAP.	10UF 50V M
	C708	VE-30016654	SMD CAP.	100NF 16V K R
	C712	VE-30000345	EL CAP.	10UF 50V M
	C713	VE-30016654	SMD CAP.	100NF 16V K R
	C714	VE-30000100	MKT CAP.	330NF 63V J
	C716	VE-30000100	MKT CAP.	330NF 63V J
	C717	VE-30000100	MKT CAP.	330NF 63V J
	C718	VE-30000100	MKT CAP.	330NF 63V J
	C719	VE-30016654	SMD CAP.	100NF 16V K R
	C720	VE-30000345	EL CAP.	10UF 50V M
	C721	VE-30000100	MKT CAP.	330NF 63V J
	C723	VE-30000100	MKT CAP.	330NF 63V J
	C724	VE-30000345	EL CAP.	10UF 50V M
	C729	VE-30016654	SMD CAP.	100NF 16V K R
	C730	VE-30000393	EL CAP.	3.3UF 50V M
	C733	VE-30000345	EL CAP.	10UF 50V M
	C734	VE-30000345	EL CAP.	10UF 50V M
	C735	VE-30016654	SMD CAP.	100NF 16V K R
	C736	VE-30000345	EL CAP.	10UF 50V M
	C737	VE-30000384	EL CAP.	2.2UF 50V M
	C738	VE-30000384	EL CAP.	2.2UF 50V M
	C739	VE-30000384	EL CAP.	2.2UF 50V M
	C740	VE-30000384	EL CAP.	2.2UF 50V M
	C741	VE-30012589	SMD CAP.	4.7NF 50V K
	C742	VE-30012589	SMD CAP.	4.7NF 50V K
	C745	VE-30016654	SMD CAP.	100NF 16V K R
⚠	C801	VE-30000094	MKT CAP.	220NF AC275V M
⚠	C802	VE-30000094	MKT CAP.	220NF AC275V M
⚠	C803	VE-30000433	CER CAP.	1NF 1KV M B
⚠	C804	VE-30000433	CER CAP.	1NF 1KV M B
	C808	VE-30012590	SMD CAP.	47NF 50V K
	C809	VE-30000421	EL CAP.	220UF 400V M (FOR 28'')
	C810	VE-30000387	EL CAP.	33UF 50V M
	C811	VE-30000161	MKP CAP.	47NF 630V J
	C812	VE-30007708	CER CAP.	1NF 1KV K (PULSE)
⚠	C816	VE-30000440	CER CAP.	2.2NF 4KV M
	C817	VE-30000198	CER CAP.	120PF 500V J SL
	C818	VE-30012590	SMD CAP.	47NF 50V K
	C819	VE-30012590	SMD CAP.	47NF 50V K
	C822	VE-30007308	CER CAP.	220PF 1KV K (PULSE)
	C826	VE-30000406	EL CAP.	47UF 250V M (HR)
	C827	VE-30000411	EL CAP.	4700UF 16V M
	C828	VE-30012590	SMD CAP.	47NF 50V K
	C829	VE-30000407	EL CAP.	470UF 16V M
	C830	VE-30000383	EL CAP.	2200UF 25V M

⚠	Symbol No.	Part No.	Part Name	Description
	CAPACITOR			
	C832	VE-30012590	SMD CAP.	47NF 50V K
	C833	VE-30000407	EL CAP.	470UF 16V M
	C834	VE-30012590	SMD CAP.	47NF 50V K
	C835	VE-30012590	SMD CAP.	47NF 50V K
	C838	VE-30000407	EL CAP.	470UF 16V M
	C839	VE-30000407	EL CAP.	470UF 16V M
	C840	VE-30000407	EL CAP.	470UF 16V M
	C848	VE-30000407	EL CAP.	470UF 16V M
	C850	VE-30000383	EL CAP.	2200UF 25V M
	C851	VE-30012590	SMD CAP.	47NF 50V K
⚠	C852	VE-30000440	CER CAP.	2.2NF 4KV M
	C857	VE-30000106	MKT CAP.	47NF 100V J
	C858	VE-30007708	CER CAP.	1NF 1KV K (PULSE)
	C859	VE-30009208	CER CAP.	470PF 1KV K (PULSE)
	C860	VE-30000296	CER CAP.	100NF 100V Z F
	C872	VE-30007708	CER CAP.	1NF 1KV K (PULSE)
	TRANSF			
	TR600	VE-30002090	LINE DRIVER	
⚠	TR601	VE-30017522	FBT TRF	
⚠	TR802	VE-30018785	SMPS TRF	
	COIL			
	L101	VE-30001971	FERRITE BEAT	
	L102	VE-30001971	FERRITE BEAT	
	L106	VE-30001971	FERRITE BEAT	
	L108	VE-30001971	FERRITE BEAT	
	L109	VE-30001971	FERRITE BEAT	
	L110	VE-30001971	FERRITE BEAT	
	L111	VE-30001971	FERRITE BEAT	
	L112	VE-30001971	FERRITE BEAT	
	L113	VE-30001971	FERRITE BEAT	
	L114	VE-30001971	FERRITE BEAT	
	L115	VE-30001971	FERRITE BEAT	
	L116	VE-30001971	FERRITE BEAT	
	L117	VE-30001971	FERRITE BEAT	
	L201	VE-30001979	FIXED COIL	1UH Q45 M-A
	L210	VE-30001971	FERRITE BEAT	
	L215	VE-30001971	FERRITE BEAT	
	L401	VE-30001971	FERRITE BEAT	
	L402	VE-30001992	FIXED COIL	10UH Q65 K-A
	L403	VE-30001971	FERRITE BEAT	
	L405	VE-30014048	ADJ. COIL	44MHZ Q=64 C=39pF
	L406	VE-30001971	FERRITE BEAT	
	L408	VE-30001992	FIXED COIL	10UH Q65 K-A
	L501	VE-30001971	FERRITE BEAT	
	L502	VE-30001971	FERRITE BEAT	
	L503	VE-30001971	FERRITE BEAT	
	L504	VE-30001971	FERRITE BEAT	
	L600	VE-30002031	FIXED COIL	INJECTION 15MH
	L602	VE-30017085	LINEARITY COIL	20UH
	L603	VE-30016083	FIXED COIL	1MH AK33 HIGH CURREN
	L700	VE-30001971	FERRITE BEAT	
	L701	VE-30001971	FERRITE BEAT	
	L702	VE-30001992	FIXED COIL	10UH Q65 K-A
	L703	VE-30001971	FERRITE BEAT	
	L704	VE-30001971	FERRITE BEAT	
	L801	VE-30002011	COIL CHOKE	150UH 0.82A RAD
	L803	VE-30001992	FIXED COIL	10UH Q65 K-A
	DIODE			
	D101	VE-30007760	ZENER DIODE	
	D104	VE-30007760	ZENER DIODE	
	D105	VE-30007760	ZENER DIODE	
	D106	VE-30007760	ZENER DIODE	
	D107	VE-30007760	ZENER DIODE	
	D303	VE-30001329	DIODE	
	D405	VE-30007763	ZENER DIODE	
	D407	VE-30001284	DIODE	
	D408	VE-30001285	DIODE	
	D409	VE-30001284	DIODE	
	D413	VE-30018526	ZENER DIODE	
	D501	VE-30001285	DIODE	
	D505	VE-30001285	DIODE	
	D506	VE-30001284	DIODE	
	D512	VE-30001285	DIODE	
	D513	VE-30001369	ZENER DIODE	

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DIODE

⚠	Symbol No.	Part No.	Part Name	Description
	D533	VE-30001377	ZENER DIODE	
	D601	VE-30001329	DIODE	
	D603	VE-30001285	DIODE	
	D605	VE-30001320	DIODE	
	D606	VE-30007681	DIODE	
	D609	VE-30001318	DIODE	
	D610	VE-30001318	DIODE	
	D613	VE-30001318	DIODE	
	D614	VE-30001285	DIODE	
	D616	VE-30003696	DIODE	
	D617	VE-30001318	DIODE	
	D651	VE-30001285	DIODE	
	D653	VE-30001285	DIODE	
	D657	VE-30007763	ZENER DIODE	
	D658	VE-30007763	ZENER DIODE	
	D659	VE-30001350	ZENER DIODE	
	D661	VE-30001350	ZENER DIODE	
	D700	VE-30001285	DIODE	
	D701	VE-30001369	ZENER DIODE	
	D800	VE-30001318	DIODE	
	D801	VE-30001372	ZENER DIODE	
	D802	VE-30001318	DIODE	
	D803	VE-30001315	DIODE	
	D804	VE-30001318	DIODE	
	D805	VE-30001315	DIODE	
	D806	VE-30001315	DIODE	
	D808	VE-20092405	CN.ASY.	UF5407+FERRITE
	D809	VE-30001329	DIODE	
	D810	VE-30009366	DIODE	
	D811	VE-30009366	DIODE	
	D812	VE-30001285	DIODE	
	D889	VE-30001384	TR	
⚠	D891	VE-30007758	DIODE	
	D892	VE-30001318	DIODE	
	D893	VE-30001318	DIODE	
	D894	VE-30001285	DIODE	
	D897	VE-30001329	DIODE	

TRANSISTOR

⚠	Symbol No.	Part No.	Part Name	Description
	Q104	VE-30001457	TR	
	Q106	VE-30001457	TR	
	Q141	VE-30001457	TR	
	Q142	VE-30001457	TR	
	Q307	VE-30001457	TR	
	Q316	VE-30001458	TR	
	Q403	VE-30001457	TR	
	Q404	VE-30001457	TR	
	Q503	VE-30001457	TR	
	Q504	VE-30001458	TR	
	Q600	VE-30001435	TR	
⚠	Q601	VE-30001441	TR	
	Q602	VE-30001429	TR	
	Q603	VE-30001458	TR	
	Q604	VE-30001457	TR	
	Q605	VE-30001458	TR	
	Q700	VE-30001458	TR	
	Q801	VE-30001386	TR	
	Q802	VE-30001457	TR	
	Q804	VE-30001454	TR	

IC

⚠	Symbol No.	Part No.	Part Name	Description
	IC301	VE-30016113	IC	
	IC403	VE-30014521	IC	
	IC500	VE-20103251	IC	(SERVICE)
	IC501	VE-20093395	PR.IC.	(MICOM)
	IC601	VE-30013985	IC	
	IC700	VE-30013658	IC	
	IC800	VE-30011968	IC	
⚠	IC801	VE-30015087	IC	
	IC802	VE-30001622	IC	
	IC803	VE-30001500	IC	
	IC804	VE-30001622	IC	
	IC818	VE-30001506	IC	

OTHERS

⚠	Symbol No.	Part No.	Part Name	Description
⚠	F801	VE-30001731	FUSE	2.5A 250V 5*20MM
⚠	TH800	VE-30001270	PTC	9 OHM
⚠	TR801	VE-30002104	LINE FILTER	
	TU201	VE-30009637	TUNER	WSP (PLL) 38.9 MK2 - BATC
	X401	VE-30001749	XTAL	
	X402	VE-30015592	XTAL	
	X501	VE-30002851	XTAL	
	X700	VE-30001756	XTAL	
	Z401	VE-30001705	SAW FILTER	
	Z402	VE-30015591	SAW FILTER	
		VE-30001964	FERRITE BAR	

[AV-29BF11ENS]

CRT SOCKET P.W. BOARD ASS'Y (VE-20094670 : Common to all models)

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R900	VE-30000788	CF RES.	1/4W 6.8M J
	R902	VE-30000459	CF RES.	1/4W 100R J
	R903	VE-30000459	CF RES.	1/4W 100R J
	R904	VE-30000459	CF RES.	1/4W 100R J
	R906	VE-30000535	CF RES.	1/2W 150K J
	R907	VE-30000477	CF RES.	1/4W 100K J
	R908	VE-30000477	CF RES.	1/4W 100K J
	R909	VE-30000525	CF RES.	1/2W 1.5K J
	R910	VE-30000525	CF RES.	1/2W 1.5K J
	R911	VE-30000525	CF RES.	1/2W 1.5K J
	R912	VE-30000477	CF RES.	1/4W 100K J
	R913	VE-30000525	CF RES.	1/2W 1.5K J
	R914	VE-30001084	MO RES.	1W 1K J
	R916	VE-30001170	MO RES.	1W 4.7K J
⚠	R917	VE-30001208	FUSE RES.	1W 10R J
	R918	VE-30000471	CF RES.	1/4W 10K J
	R921	VE-30000599	CF RES.	1/4W 220K J
	R922	VE-30000590	CF RES.	1/4W 2.2K J
	CAPACITOR			
	C900	VE-30000075	MKT CAP.	100NF 250V K (DC)
	C902	VE-30000415	EL CAP.	4.7UF 250V M
	C903	VE-30000438	CER CAP.	2.2NF 2KV
	C904	VE-30000295	CER CAP.	100NF 50V Z F
	C905	VE-30000234	CER CAP.	270PF 50V J SL
	C906	VE-30000350	EL CAP.	10UF 250V M
	C907	VE-30000075	MKT CAP.	100NF 250V K (DC)
	C909	VE-30000385	EL CAP.	2.2UF 250V M
	C910	VE-30000438	CER CAP.	2.2NF 2KV
	C911	VE-30000433	CER CAP.	1NF 1KV M B
	COIL			
	L900	VE-30002170	FTZ/RAD COIL	
	DIODE			
	D901	VE-30001329	DIODE	
	D902	VE-30001318	DIODE	
	D903	VE-30001329	DIODE	
	D904	VE-30001329	DIODE	
	D905	VE-30001284	DIODE	
	D906	VE-30001284	DIODE	
	D907	VE-30001284	DIODE	
	D908	VE-30001284	DIODE	
	D909	VE-30001344	ZENER DIODE	
	NOT1	VE-30001329	DIODE	
	TRANSISTOR			
	Q900	VE-30001427	TR	
	Q901	VE-30001454	TR	
	IC			
	IC900	VE-30008721	IC	
	OTHERS			
⚠	PL900	VE-30001855	CRT SOCKET	
	SG901	VE-30000428	SPARK GAP	300V
	SG902	VE-30000428	SPARK GAP	300V
	SG903	VE-30000428	SPARK GAP	300V
	SG904	VE-30000428	SPARK GAP	300V
		VE-20000954	HE.ASY.	CONTAINS HEATSINK+IC900

FRONT AV & HEADPHONE P.W. BOARD ASS'Y (VE-20083646 : Common to all models)

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R107	VE-30000594	CF RES.	1/4W 22K J
	R108	VE-30000712	CF RES.	1/4W 470R J
	R109	VE-30000594	CF RES.	1/4W 22K J
	R110	VE-30000712	CF RES.	1/4W 470R J
	R113	VE-30000744	CF RES.	1/4W 560R J
	R114	VE-30000744	CF RES.	1/4W 560R J
	R115	VE-30000712	CF RES.	1/4W 470R J
	R116	VE-30000712	CF RES.	1/4W 470R J
	CAPACITOR			
	C103	VE-30000213	CER CAP.	180PF 50V J CH
	C104	VE-30000213	CER CAP.	180PF 50V J CH
	C106	VE-30000190	CER CAP.	100PF 50V J CH
	TRANSF			
	T103	VE-30001962	FERRITE	
	T104	VE-30001963	FERRITE	
	T107	VE-30001963	FERRITE	
	COIL			
	L103	VE-30001996	FIXED COIL	22UH Q40 K
	L104	VE-30001996	FIXED COIL	22UH Q40 K
	OTHERS			
	CON102	VE-30001893	RCA JACK	
	CON103	VE-30001891	RCA JACK	
	CON104	VE-30001892	RCA JACK	
	CON106	VE-30001900	HEADPHONE JACK	HP01/2/3/4/5/6

FRONT CONTROL P.W. BOARD ASS'Y (VE-20100168 : Common to all models)

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R1	VE-30000689	CF RES.	1/4W 3.9K J
	R2	VE-30000526	CF RES.	1/4W 1.5K J
	R3	VE-30000770	CF RES.	1/4W 680R J
	R4	VE-30000712	CF RES.	1/4W 470R J
	R5	VE-30000623	CF RES.	1/4W 270R G
	CAPACITOR			
	C1	VE-30000295	CER CAP.	100NF 50V Z F
	OTHERS			
	LD102	VE-30001279	LED RED/GREEN	
	MD101	VE-30001670	PREAMPLIFIER	
	PL1	VE-30002302	CONN.ASSY.	6/45 FC (CRT)
	S101	VE-30002181	SWITCH TACT	P+
	S102	VE-30002181	SWITCH TACT	P-
	S103	VE-30002181	SWITCH TACT	V-
	S104	VE-30002181	SWITCH TACT	V+
	S105	VE-30002181	SWITCH TACT	MENU

PRINTED WIRING BOARD PARTS LIST

[AV-29BF11EPS]

MAIN P.W. BOARD ASS'Y (VE-20103267)

⚠	Symbol No.	Part No.	Part Name	Description
	VARIABLE RESISTOR			
	VR800	VE-30001064	ADJ RES	1/10W 470R VER (MAN)
	RESISTOR			
	R102	VE-30012657	SMD RES.	1/16W 1K J
	R103	VE-30012657	SMD RES.	1/16W 1K J
	R106	VE-30012713	SMD RES.	1/16W 75R J
	R107	VE-30012649	SMD RES.	1/16W 150R J
	R109	VE-30012713	SMD RES.	1/16W 75R J
	R110	VE-30012713	SMD RES.	1/16W 75R J
	R111	VE-30012649	SMD RES.	1/16W 150R J
	R113	VE-30012713	SMD RES.	1/16W 75R J
	R114	VE-30012713	SMD RES.	1/16W 75R J
	R115	VE-30012713	SMD RES.	1/16W 75R J
	R117	VE-30000792	CF RES.	1/4W 75R J
	R118	VE-30012713	SMD RES.	1/16W 75R J
	R121	VE-30012649	SMD RES.	1/16W 150R J
	R122	VE-30000792	CF RES.	1/4W 75R J
	R123	VE-30000792	CF RES.	1/4W 75R J
	R124	VE-30012649	SMD RES.	1/16W 150R J
	R126	VE-30012657	SMD RES.	1/16W 1K J
	R129	VE-30012713	SMD RES.	1/16W 75R J
	R135	VE-30012657	SMD RES.	1/16W 1K J
	R137	VE-30000466	CF RES.	1/4W 1K J
	R138	VE-30012657	SMD RES.	1/16W 1K J
	R139	VE-30012713	SMD RES.	1/16W 75R J
	R141	VE-30012657	SMD RES.	1/16W 1K J
	R145	VE-30012713	SMD RES.	1/16W 75R J
	R149	VE-30012703	SMD RES.	1/16W 56K J
	R151	VE-30012696	SMD RES.	1/16W 47K J
	R152	VE-30000752	CF RES.	1/4W 56K J
	R153	VE-30012657	SMD RES.	1/16W 1K J
	R154	VE-30000723	CF RES.	1/4W 47K J
	R155	VE-30012649	SMD RES.	1/16W 150R J
	R169	VE-30012703	SMD RES.	1/16W 56K J
	R171	VE-30012713	SMD RES.	1/16W 75R J
	R172	VE-30012692	SMD RES.	1/16W 4.7K J
	R174	VE-30012713	SMD RES.	1/16W 75R J
	R175	VE-30012713	SMD RES.	1/16W 75R J
	R176	VE-30012703	SMD RES.	1/16W 56K J
	R201	VE-30012674	SMD RES.	1/16W 27K J
	R202	VE-30012692	SMD RES.	1/16W 4.7K J
	R204	VE-30000459	CF RES.	1/4W 100R J
	R206	VE-30000459	CF RES.	1/4W 100R J
	R319	VE-30014076	SMD RES.	1/16W 4.7R J
	R320	VE-30014076	SMD RES.	1/16W 4.7R J
	R324	VE-30012667	SMD RES.	1/16W 220K J
	R328	VE-30012649	SMD RES.	1/16W 150R J
	R329	VE-30012692	SMD RES.	1/16W 4.7K J
	R332	VE-30012641	SMD RES.	1/16W 10K J
	R333	VE-30012702	SMD RES.	1/16W 560R J
	R338	VE-30012641	SMD RES.	1/16W 10K J
	R340	VE-30012644	SMD RES.	1/16W 12K J
	R341	VE-30012702	SMD RES.	1/16W 560R J
	R343	VE-30012659	SMD RES.	1/16W 2.2K J
	R370	VE-30012669	SMD RES.	1/16W 22K J
	R371	VE-30012669	SMD RES.	1/16W 22K J
	R391	VE-30012696	SMD RES.	1/16W 47K J
	R402	VE-30012692	SMD RES	1/16W 4.7K J
	R407	VE-30000590	CF RES	1/4W 2.2K J
	R412	VE-30000723	CF RES	1/4W 47K J
	R417	VE-30012510	SMD RES.	1/16W 100R J
	R418	VE-30012510	SMD RES.	1/16W 100R J
	R419	VE-30012649	SMD RES.	1/16W 150R J
	R420	VE-30000466	CF RES.	1/4W 1K J
	R421	VE-30012650	SMD RES.	1/16W 15K J
	R422	VE-30012659	SMD RES.	1/16W 2.2K J
	R423	VE-30012712	SMD RES.	1/16W 8.2K J
	R425	VE-30012510	SMD RES.	1/16W 100R J
	R426	VE-30012659	SMD RES.	1/16W 2.2K J
	R427	VE-30012674	SMD RES.	1/16W 27K J
	R428	VE-30012510	SMD RES.	1/16W 100R J
	R430	VE-30012702	SMD RES.	1/16W 560R J
	R431	VE-30012674	SMD RES.	1/16W 27K J
	R432	VE-30012707	SMD RES.	1/16W 680R J
	R433	VE-30012683	SMD RES.	1/16W 330K J
	R437	VE-30000466	CF RES.	1/4W 1K J
	R438	VE-30000466	CF RES.	1/4W 1K J
	R439	VE-30012657	SMD RES.	1/16W 1K J
	R440	VE-30012714	SMD RES.	1/16W 820R J

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R441	VE-30012674	SMD RES.	1/16W 27K J
	R442	VE-30000466	CF RES.	1/4W 1K J
	R446	VE-30012714	SMD RES.	1/16W 820R J
	R447	VE-30012714	SMD RES.	1/16W 820R J
	R448	VE-30012683	SMD RES.	1/16W 330K J
	R450	VE-30012702	SMD RES.	1/16W 560R J
	R458	VE-30012510	SMD RES.	1/16W 100R J
	R459	VE-30012668	SMD RES.	1/16W 220R J
	R460	VE-30012668	SMD RES.	1/16W 220R J
	R461	VE-30012668	SMD RES.	1/16W 220R J
	R449	VE-30012659	SMD RES.	1/16W 2.2K J
	R462	VE-30012510	SMD RES.	1/16W 100R J
	R467	VE-30000670	CF RES.	1/4W 330K J
	R468	VE-30000670	CF RES.	1/4W 330K J
	R469	VE-30000628	CF RES.	1/4W 2.7K J
	R471	VE-30014022	SMD RES.	1/16W 47R J
	R472	VE-30012662	SMD RES.	1/16W 2.7K J
	R474	VE-30012662	SMD RES.	1/16W 2.7K J
	R481	VE-30000466	CF RES.	1/4W 1K J
	R482	VE-30012657	SMD RES.	1/16W 1K J
	R483	VE-30012657	SMD RES.	1/16W 1K J
	R485	VE-30012657	SMD RES.	1/16W 1K J
	R486	VE-30012657	SMD RES.	1/16W 1K J
	R487	VE-30012657	SMD RES.	1/16W 1K J
	R507	VE-30000466	CF RES.	1/4W 1K J
	R508	VE-30012510	SMD RES.	1/16W 100R J
	R509	VE-30012641	SMD RES.	1/16W 10K J
	R510	VE-30012702	SMD RES.	1/16W 560R J
	R511	VE-30012657	SMD RES.	1/16W 1K J
	R512	VE-30000495	CF RES.	1/4W 1.2K J
	R513	VE-30000459	CF RES.	1/4W 100R J
	R514	VE-30000459	CF RES.	1/4W 100R J
	R515	VE-30012659	SMD RES.	1/16W 2.2K J
	R516	VE-30012659	SMD RES.	1/16W 2.2K J
	R517	VE-30012692	SMD RES.	1/16W 4.7K J
	R518	VE-30000471	CF RES.	1/4W 10K J
	R519	VE-30012698	SMD RES.	1/16W 5.6K J
	R525	VE-30012649	SMD RES.	1/16W 150R J
	R526	VE-30012641	SMD RES.	1/16W 10K J
	R527	VE-30012692	SMD RES.	1/16W 4.7K J
	R528	VE-30012698	SMD RES.	1/16W 5.6K J
	R529	VE-30012698	SMD RES.	1/16W 5.6K J
	R530	VE-30012698	SMD RES.	1/16W 5.6K J
	R532	VE-30012659	SMD RES.	1/16W 2.2K J
	R533	VE-30012644	SMD RES.	1/16W 12K J
	R534	VE-30000628	CF RES.	1/4W 2.7K J
	R537	VE-30012641	SMD RES.	1/16W 10K J
	R538	VE-30012698	SMD RES.	1/16W 5.6K J
	R539	VE-30012659	SMD RES.	1/16W 2.2K J
	R540	VE-30012644	SMD RES.	1/16W 12K J
	R545	VE-30012644	SMD RES.	1/16W 12K J
	R548	VE-30012641	SMD RES.	1/16W 10K J
	R552	VE-30012692	SMD RES	1/16W 4.7K J
	R554	VE-30012641	SMD RES.	1/16W 10K J
	R555	VE-30012659	SMD RES.	1/16W 2.2K J
	R556	VE-30012657	SMD RES.	1/16W 1K J
	R560	VE-30012674	SMD RES.	1/16W 27K J
	R561	VE-30012692	SMD RES.	1/16W 4.7K J
	R568	VE-30000594	CF RES.	1/4W 22K J
	R572	VE-30012659	SMD RES.	1/16W 2.2K J
	R573	VE-30012641	SMD RES.	1/16W 10K J
	R574	VE-30012657	SMD RES.	1/16W 1K J
	R603	VE-30000459	CF RES.	1/4W 100R J
	R604	VE-30012510	SMD RES.	1/16W 100R J
	R606	VE-30000471	CF RES.	1/4W 10K J
	R607	VE-30000554	CF RES.	1/4W 180R J
	R608	VE-30000859	MF RES.	1/2W 1R F
	R609	VE-30000711	CF RES.	1/2W 470R J
	R610	VE-30000599	CF RES.	1/4W 220K J
	R611	VE-30012708	SMD RES.	1/16W 68K J
	R616	VE-30012685	SMD RES.	1/16W 33K J
	R617	VE-30000572	CF RES.	1/4W 2K J
	R630	VE-30012702	SMD RES.	1/16W 560R J
	R634	VE-30000633	CF RES.	1/4W 27K J
	R639	VE-30000471	CF RES.	1/4W 10K J
	R640	VE-30000628	CF RES.	1/4W 2.7K J
	R646	VE-30000775	CF RES.	1/4W 6.8K J
	R647	VE-30000466	CF RES.	1/4W 1K J
⚠	R648	VE-30001246	FUSE RES.	1W 0.47R J
	R650	VE-30012702	SMD RES.	1/16W 560R J
	R651	VE-30012668	SMD RES.	1/16W 220R J

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RESISTOR

⚠	Symbol No.	Part No.	Part Name	Description
⚠	R656	VE-30001247	FUSE RES.	1/2W 4.7R J
⚠	R657	VE-30001228	FUSE RES.	1/2W 2.2R J
	R662	VE-30012674	SMD RES.	1/16W 27K J
	R666	VE-30000531	CF RES.	1/4W 15K J
	R668	VE-30000607	CF RES.	1/4W 2.2R J
	R669	VE-30012510	SMD RES.	1/16W 100R J
	R670	VE-30012510	SMD RES.	1/16W 100R J
	R677	VE-30001124	MO RES.	3W 220R J
	R678	VE-30014022	SMD RES.	1/16W 47R J
	R680	VE-30000477	CF RES.	1/4W 100K J
	R681	VE-30012509	SMD RES.	1/16W 100K J
	R674	VE-30012662	SMD RES.	1/16W 2.7K J
⚠	R675	VE-30001208	FUSE RES.	1W 10R J
	R682	VE-30017082	WW RES.	5W 75R J RAD.
	R683	VE-30017083	WW RES.	5W 2.2K J RAD.
	R689	VE-30000718	CF RES.	1/4W 4.7K J
	R690	VE-30000466	CF RES.	1/4W 1K J
	R691	VE-30012696	SMD RES.	1/16W 47K J
	R692	VE-30012509	SMD RES.	1/16W 100K J
	R693	VE-30012708	SMD RES.	1/16W 68K J
	R694	VE-30000689	CF RES.	1/4W 3.9K J
	R695	VE-30000775	CF RES.	1/4W 6.8K J
	R696-Y	VE-30001350	ZENER DIODE	12V
	R697	VE-30000712	CF RES.	1/4W 470R J
	R698	VE-30012657	SMD RES.	1/16W 1K J
	R700	VE-30012649	SMD RES.	1/16W 150R J
	R701	VE-30000459	CF RES.	1/4W 100R J
	R703	VE-30000459	CF RES.	1/4W 100R J
	R705	VE-30000459	CF RES.	1/4W 100R J
	R715	VE-30012702	SMD RES.	1/16W 560R J
	R717	VE-30012702	SMD RES.	1/16W 560R J
	R719	VE-30012657	SMD RES.	1/16W 1K J
	R721	VE-30012510	SMD RES.	1/16W 100R J
	R722	VE-30012510	SMD RES.	1/16W 100R J
	R723	VE-30012510	SMD RES.	1/16W 100R J
	R724	VE-30012510	SMD RES.	1/16W 100R J
	R801	VE-30000718	CF RES.	1/4W 4.7K J
	R803	VE-30012659	SMD RES.	1/16W 2.2K J
	R805	VE-30000650	CF RES.	1/4W 33R J
	R806	VE-30000982	MF RES.	1/4W 4.7K J
	R807	VE-30001173	MO RES.	1W 0.47R J
	R809	VE-30007784	MO RES.	5W 33K J(RADIAL)
⚠	R810	VE-30001257	MG RES.	1/2W 4.7M J
	R811	VE-30000718	CF RES.	1/4W 4.7K J
	R812	VE-30012641	SMD RES.	1/16W 10K J
	R813	VE-30000466	CF RES.	1/4W 1K J
	R814	VE-30000466	CF RES.	1/4W 1K J
	R817	VE-30000880	MF RES.	1/4W 130K F
	R818	VE-30012675	SMD RES.	1/16W 2K J
	R819	VE-30000526	CF RES.	1/4W 1.5K J
	R828	VE-30000530	CF RES.	1/2W 15K J
	R829	VE-30000530	CF RES.	1/2W 15K J
	R834	VE-30001159	MO RES.	1W 0.33R J
	R836	VE-30012662	SMD RES.	1/16W 2.7K J
	R839	VE-30000526	CF RES.	1/4W 1.5K J
	R842	VE-30014128	SMD RES.	1/16W 33R J
	R844	VE-30012641	SMD RES.	1/16W 10K J
	R845	VE-30012509	SMD RES.	1/16W 100K J
	R846	VE-30012692	SMD RES.	1/16W 4.7K J
	R847	VE-30014128	SMD RES.	1/16W 33R J
	R848	VE-30012641	SMD RES.	1/16W 10K J
	R849	VE-30012510	SMD RES.	1/16W 100R J
	R851	VE-30000718	CF RES.	1/4W 4.7K J
	R852	VE-30000650	CF RES.	1/4W 33R J
	R853	VE-30012642	SMD RES.	1/16W 120K J
	R855	VE-30000459	CF RES.	1/4W 100R J
	R856	VE-30012694	SMD RES.	1/16W 470K J
	R857	VE-30001263	WW RES.	5W 3.9R J (RAD)

CAPACITOR

	C141	VE-30007081	EL CAP.	4.7UF 50V M (NPL)
	C142	VE-30007081	EL CAP.	4.7UF 50V M (NPL)
	C143	VE-30012589	SMD CAP.	4.7NF 50V K
	C144	VE-30012589	SMD CAP.	4.7NF 50V K
	C145	VE-30012589	SMD CAP.	4.7NF 50V K
	C146	VE-30012589	SMD CAP.	4.7NF 50V K
	C147	VE-30012589	SMD CAP.	4.7NF 50V K
	C148	VE-30012589	SMD CAP.	4.7NF 50V K
	C149	VE-30012589	SMD CAP.	4.7NF 50V K
	C150	VE-30012589	SMD CAP.	4.7NF 50V K
	C155	VE-30012560	SMD CAP.	100PF 50V J

CAPACITOR

⚠	Symbol No.	Part No.	Part Name	Description
	C157	VE-30012560	SMD CAP.	100PF 50V J
	C159	VE-30000352	EL CAP.	100UF 16V M
	C160	VE-30000345	EL CAP.	10UF 50V M
	C161	VE-30000345	EL CAP.	10UF 50V M
	C162	VE-30012573	SMD CAP.	47PF 50V J
	C164	VE-30012692	SMD RES.	1/16W 4.7K J
	C165	VE-30000413	EL CAP.	4.7UF 50V M
	C201	VE-30000400	EL CAP.	47UF 50V M
	C205	VE-30000345	EL CAP.	10UF 50V M
	C206	VE-30012610	SMD CAP.	10NF 50V J
	C207	VE-30012610	SMD CAP.	10NF 50V J
	C230	VE-30016654	SMD CAP.	100NF 16V K R
	C246	VE-30000295	CER CAP.	100NF 50V Z F
	C303	VE-30000100	MKT CAP.	330NF 63V J
	C305	VE-30012590	SMD CAP.	47NF 50V K
	C310	VE-30000345	EL CAP.	10UF 50V M
	C333	VE-30000083	MKT CAP.	150NF 63V J
	C363	VE-30000083	MKT CAP.	150NF 63V J
	C364	VE-30012590	SMD CAP.	47NF 50V K
	C366	VE-30000407	EL CAP.	470UF 16V M
	C368	VE-30012590	SMD CAP.	47NF 50V K
	C404	VE-30000190	CER CAP.	100PF 50V J CH
	C408	VE-30012586	SMD CAP.	22NF 50V K
	C409	VE-30000345	EL CAP.	10UF 50V M
	C410	VE-30000384	EL CAP.	2.2UF 50V M
	C411	VE-30000345	EL CAP.	10UF 50V M
	C412	VE-30016654	SMD CAP.	100NF 16V K R
	C413	VE-30000362	EL CAP.	1UF 50V M
	C414	VE-30012585	SMD CAP.	2.2NF 50V K R
	C415	VE-30012581	SMD CAP.	1NF 50V K R
	C416	VE-30000362	EL CAP.	1UF 50V M
	C417	VE-30000362	EL CAP.	1UF 50V M
	C418	VE-30016654	SMD CAP.	100NF 16V K R
	C419	VE-30000384	EL CAP.	2.2UF 50V M
	C420	VE-30000100	MKT CAP.	330NF 63V J
	C422	VE-30000352	EL CAP.	100UF 16V M
	C423	VE-30000352	EL CAP.	100UF 16V M
	C424	VE-30000352	EL CAP.	100UF 16V M
	C425	VE-30016654	SMD CAP.	100NF 16V K R
	C427	VE-30016654	SMD CAP.	100NF 16V K R
	C429	VE-30012589	SMD CAP.	4.7NF 50V K
	C430	VE-30016654	SMD CAP.	100NF 16V K R
	C431	VE-30000362	EL CAP.	1UF 50V M
	C432	VE-30016654	SMD CAP.	100NF 16V K R
	C433	VE-30000345	EL CAP.	10UF 50V M
	C434	VE-30016654	SMD CAP.	100NF 16V K R
	C435	VE-30016654	SMD CAP.	100NF 16V K R
	C436	VE-30000109	MKT CAP.	470NF 63V J
	C437	VE-30016654	SMD CAP.	100NF 16V K R
	C438	VE-30016654	SMD CAP.	100NF 16V K R
	C439	VE-30016654	SMD CAP.	100NF 16V K R
	C440	VE-30000295	CER CAP.	100NF 50V Z F
	C441	VE-30012582	SMD CAP.	10NF 50V K R
	C442	VE-30000109	MKT CAP.	470NF 63V J
	C443	VE-30000362	EL CAP.	1UF 50V M
	C444	VE-30000384	EL CAP.	2.2UF 50V M
	C446	VE-30000345	EL CAP	10UF 50V M
	C448	VE-30012586	SMD CAP.	22NF 50V K
	C449	VE-30012560	SMD CAP.	100PF 50V J
	C453	VE-30000352	EL CAP.	100UF 16V M
	C455	VE-30000345	EL CAP.	10UF 50V M
	C457	VE-30012560	SMD CAP.	100PF 50V J
	C459	VE-30012560	SMD CAP.	100PF 50V J
	C501	VE-30016654	SMD CAP.	100NF 16V K R
	C502	VE-30000400	EL CAP.	47UF 50V M
	C504	VE-30016654	SMD CAP.	100NF 16V K R
	C505	VE-30012589	SMD CAP.	4.7NF 50V K
	C507	VE-30000345	EL CAP.	10UF 50V M
	C510	VE-30016654	SMD CAP.	100NF 16V K R
	C511	VE-30012566	SMD CAP.	22PF 50V J
	C513	VE-30000345	EL CAP.	10UF 50V M
	C514	VE-30016654	SMD CAP.	100NF 16V K R
	C515	VE-30012560	SMD CAP.	100PF 50V J
	C517	VE-30016654	SMD CAP.	100NF 16V K R
	C518	VE-30016654	SMD CAP.	100NF 16V K R
	C519	VE-30012560	SMD CAP.	100PF 50V J
	C520	VE-30012560	SMD CAP.	100PF 50V J
	C521	VE-30012562	SMD CAP.	15PF 50V J
	C522	VE-30012562	SMD CAP.	15PF 50V J
	C523	VE-30012585	SMD CAP.	2.2NF 50V K R
	C524	VE-30012566	SMD CAP.	22PF 50V J
	C525	VE-30012566	SMD CAP.	22PF 50V J
	C526	VE-30016654	SMD CAP.	100NF 16V K R
	C527	VE-30000345	EL CAP.	10UF 50V M

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CAPACITOR

⚠	Symbol No.	Part No.	Part Name	Description
	C529	VE-30012589	SMD CAP.	4.7NF 50V K
	C530	VE-30012589	SMD CAP.	4.7NF 50V K
	C532	VE-30016654	SMD CAP.	100NF 16V K R
	C536	VE-30000295	CER CAP.	100NF 50V Z F
	C541	VE-30000362	EL CAP.	1UF 50V M
	C542	VE-30000107	MKT CAP.	47NF 250V J
	C543	VE-30000431	CER CAP.	100PF 1KV M
	C544	VE-30000345	EL CAP.	10UF 50V M
	C547	VE-30000345	EL CAP.	10UF 50V M
	C457	VE-30012560	SMD CAP	100PF 50V J
	C565	VE-30016654	SMD CAP.	100NF 16V K R
	C566	VE-30016654	SMD CAP.	100NF 16V K R
	C567	VE-30000431	CER CAP.	100PF 1KV M
	C602	VE-30017319	MKT CAP.	120NF 63V J
	C604	VE-30000356	EL CAP.	100UF 63V M
	C605	VE-30000360	EL CAP.	1000UF 25V M
	C607	VE-30012581	SMD CAP.	1NF 50V K R
⚠	C618	VE-30000168	MKP CAP.	6.2NF 1.6KV 3.5%
⚠	C621	VE-30000136	MKP CAP.	12NF 2000V %3.5
	C622	VE-30012003	MKP CAP.	18NF 630V J
	C623	VE-30000406	EL CAP.	47UF 250V M (HR)
⚠	C625	VE-30000177	MKP CAP.	820NF 250V J
	C627	VE-30000162	MKP CAP.	470NF 250V J
	C629	VE-30013003	MKP CAP.	1UF 250V J P=15
	C632	VE-30000100	MKT CAP.	330NF 63V J
	C635	VE-30000385	EL CAP.	2.2UF 250V M
	C636	VE-30000387	EL CAP.	33UF 50V M
	C640	VE-30000100	MKT CAP.	330NF 63V J
	C641	VE-30000090	MKT CAP.	22NF 100V J
	C642	VE-30000407	EL CAP.	470UF 16V M
	C644	VE-30000409	EL CAP.	470UF 25V M
	C645	VE-30000090	MKT CAP.	22NF 100V J
	C646	VE-30000100	MKT CAP.	330NF 63V J
	C647	VE-30007748	EL CAP.	1000UF 35V M
	C648	VE-30000394	EL CAP.	3.3UF 160V M
	C649	VE-30000295	CER CAP.	100NF 50V Z F
	C652	VE-30000330	CER CAP.	4.7NF 50V K B
	C653	VE-30000107	MKT CAP.	47NF 250V J
	C700	VE-30012565	SMD CAP.	1.8PF 50V J CH
	C701	VE-30012565	SMD CAP.	1.8PF 50V J CH
	C702	VE-30012576	SMD CAP.	56PF 50V J CH
	C703	VE-30012576	SMD CAP.	56PF 50V J CH
	C704	VE-30012576	SMD CAP.	56PF 50V J CH
	C705	VE-30000345	EL CAP.	10UF 50V M
	C706	VE-30000345	EL CAP.	10UF 50V M
	C708	VE-30016654	SMD CAP.	100NF 16V K R
	C712	VE-30000345	EL CAP.	10UF 50V M
	C713	VE-30016654	SMD CAP.	100NF 16V K R
	C714	VE-30000100	MKT CAP.	330NF 63V J
	C716	VE-30000100	MKT CAP.	330NF 63V J
	C717	VE-30000100	MKT CAP.	330NF 63V J
	C718	VE-30000100	MKT CAP.	330NF 63V J
	C719	VE-30016654	SMD CAP.	100NF 16V K R
	C720	VE-30000345	EL CAP.	10UF 50V M
	C721	VE-30000100	MKT CAP.	330NF 63V J
	C723	VE-30000100	MKT CAP.	330NF 63V J
	C724	VE-30000345	EL CAP.	10UF 50V M
	C729	VE-30016654	SMD CAP.	100NF 16V K R
	C730	VE-30000393	EL CAP.	3.3UF 50V M
	C733	VE-30000345	EL CAP.	10UF 50V M
	C734	VE-30000345	EL CAP.	10UF 50V M
	C735	VE-30016654	SMD CAP.	100NF 16V K R
	C736	VE-30000345	EL CAP.	10UF 50V M
	C737	VE-30000384	EL CAP.	2.2UF 50V M
	C738	VE-30000384	EL CAP.	2.2UF 50V M
	C739	VE-30000384	EL CAP.	2.2UF 50V M
	C740	VE-30000384	EL CAP.	2.2UF 50V M
	C741	VE-30012589	SMD CAP.	4.7NF 50V K
	C742	VE-30012589	SMD CAP.	4.7NF 50V K
	C745	VE-30016654	SMD CAP.	100NF 16V K R
⚠	C801	VE-30000094	MKT CAP.	220NF AC275V M
⚠	C802	VE-30000094	MKT CAP.	220NF AC275V M
⚠	C803	VE-30000433	CER CAP.	1NF 1KV M B
⚠	C804	VE-30000433	CER CAP.	1NF 1KV M B
	C808	VE-30012590	SMD CAP.	47NF 50V K
	C809	VE-30000421	EL CAP.	220UF 400V M (FOR 28'')
	C810	VE-30000387	EL CAP.	33UF 50V M
	C811	VE-30000161	MKP CAP.	47NF 630V J
	C812	VE-30007708	CER CAP.	1NF 1KV K (PULSE)
⚠	C816	VE-30000440	CER CAP.	2.2NF 4KV M
	C817	VE-30000198	CER CAP.	120PF 500V J SL
	C818	VE-30012590	SMD CAP.	47NF 50V K
	C819	VE-30012590	SMD CAP.	47NF 50V K

CAPACITOR

⚠	Symbol No.	Part No.	Part Name	Description
	C822	VE-30007308	CER CAP.	220PF 1KV K (PULSE)
	C826	VE-30000406	EL CAP.	47UF 250V M (HR)
	C827	VE-30000411	EL CAP.	4700UF 16V M
	C828	VE-30012590	SMD CAP.	47NF 50V K
	C829	VE-30000407	EL CAP.	470UF 16V M
	C830	VE-30000383	EL CAP.	2200UF 25V M
	C832	VE-30012590	SMD CAP.	47NF 50V K
	C833	VE-30000407	EL CAP.	470UF 16V M
	C834	VE-30012590	SMD CAP.	47NF 50V K
	C835	VE-30012590	SMD CAP.	47NF 50V K
	C838	VE-30000407	EL CAP.	470UF 16V M
	C839	VE-30000407	EL CAP.	470UF 16V M
	C840	VE-30000407	EL CAP.	470UF 16V M
	C848	VE-30000407	EL CAP.	470UF 16V M
	C850	VE-30000383	EL CAP.	2200UF 25V M
	C851	VE-30012590	SMD CAP.	47NF 50V K
⚠	C852	VE-30000440	CER CAP.	2.2NF 4KV M
	C857	VE-30000106	MKT CAP.	47NF 100V J
	C858	VE-30007708	CER CAP.	1NF 1KV K (PULSE)
	C859	VE-30009208	CER CAP.	470PF 1KV K (PULSE)
	C860	VE-30000296	CER CAP.	100NF 100V Z F
	C872	VE-30007708	CER CAP.	1NF 1KV K (PULSE)

TRANSF

⚠	Symbol No.	Part No.	Part Name	Description
	TR600	VE-30002090	LINE DRIVER	
⚠	TR601	VE-30017522	FBT TRF	
⚠	TR802	VE-30018785	SMPS TRF	

COIL

Symbol No.	Part No.	Part Name	Description
L101	VE-30001971	FERRITE BEAT	
L102	VE-30001971	FERRITE BEAT	
L106	VE-30001971	FERRITE BEAT	
L108	VE-30001971	FERRITE BEAT	
L109	VE-30001971	FERRITE BEAT	
L110	VE-30001971	FERRITE BEAT	
L111	VE-30001971	FERRITE BEAT	
L112	VE-30001971	FERRITE BEAT	
L113	VE-30001971	FERRITE BEAT	
L114	VE-30001971	FERRITE BEAT	
L115	VE-30001971	FERRITE BEAT	
L116	VE-30001971	FERRITE BEAT	
L117	VE-30001971	FERRITE BEAT	
L201	VE-30001979	FIXED COIL	1UH Q45 M-A
L210	VE-30001971	FERRITE BEAT	
L215	VE-30001971	FERRITE BEAT	
L401	VE-30001971	FERRITE BEAT	
L402	VE-30001992	FIXED COIL	10UH Q65 K-A
L403	VE-30001971	FERRITE BEAT	
L404	VE-30001990	FIXED COIL	6.8UH Q75 K
L405	VE-30014048	ADJ. COIL	44MHZ Q=64 C=39pF
L406	VE-30001971	FERRITE BEAT	
L407	VE-30001992	FIXED COIL	10UH Q65 K-A
L408	VE-30001992	FIXED COIL	10UH Q65 K-A
L501	VE-30001971	FERRITE BEAT	
L502	VE-30001971	FERRITE BEAT	
L503	VE-30001971	FERRITE BEAT	
L504	VE-30001971	FERRITE BEAT	
L600	VE-30002031	FIXED COIL	INJECTION 15MH
L602	VE-30017085	LINEARITY COIL	20UH
L603	VE-30016083	FIXED COIL	1MH AK33 HIGH CURREN
L700	VE-30001971	FERRITE BEAT	
L701	VE-30001971	FERRITE BEAT	
L702	VE-30001992	FIXED COIL	10UH Q65 K-A
L703	VE-30001971	FERRITE BEAT	
L704	VE-30001971	FERRITE BEAT	
L801	VE-30002011	CHOKE COIL	150UH 0.82A RAD
L803	VE-30001992	FIXED COIL	10UH Q65 K-A

DIODE

Symbol No.	Part No.	Part Name	Description
D101	VE-30007760	ZENER DIODE	
D104	VE-30007760	ZENER DIODE	
D105	VE-30007760	ZENER DIODE	
D106	VE-30007760	ZENER DIODE	
D107	VE-30007760	ZENER DIODE	
D303	VE-30001329	DIODE	
D405	VE-30007763	ZENER DIODE	
D407	VE-30001284	DIODE	

[AV-29BF11EPS]

DIODE

⚠	Symbol No.	Part No.	Part Name	Description
	D408	VE-30001285	DIODE	
	D409	VE-30001284	DIODE	
	D413	VE-30018526	ZENER DIODE	
	D414	VE-30001283	DIODE	
	D501	VE-30001285	DIODE	
	D505	VE-30001285	DIODE	
	D506	VE-30001284	DIODE	
	D512	VE-30001285	DIODE	
	D513	VE-30001369	ZENER DIODE	
	D533	VE-30001377	ZENER DIODE	
	D601	VE-30001329	DIODE	
	D603	VE-30001285	DIODE	
	D605	VE-30001320	DIODE	
	D606	VE-30007681	DIODE	
	D609	VE-30001318	DIODE	
	D610	VE-30001318	DIODE	
	D613	VE-30001318	DIODE	
	D614	VE-30001285	DIODE	
	D616	VE-30003696	DIODE	
	D617	VE-30001318	DIODE	
	D651	VE-30001285	DIODE	
	D653	VE-30001285	DIODE	
	D657	VE-30007763	ZENER DIODE	
	D658	VE-30007763	ZENER DIODE	
	D659	VE-30001350	ZENER DIODE	
	D661	VE-30001350	ZENER DIODE	
	D700	VE-30001285	DIODE	
	D701	VE-30001369	ZENER DIODE	
	D800	VE-30001318	DIODE	
	D801	VE-30001372	ZENER DIODE	
	D802	VE-30001318	DIODE	
	D803	VE-30001315	DIODE	
	D804	VE-30001318	DIODE	
	D805	VE-30001315	DIODE	
	D806	VE-30001315	DIODE	
	D808	VE-20092405	CN.ASY.	UF5407+FERRITE
	D809	VE-30001329	DIODE	
	D810	VE-30009366	DIODE	
	D811	VE-30009366	DIODE	
	D812	VE-30001285	DIODE	
	D889	VE-30001384	TR	
⚠	D891	VE-30007758	DIODE	
	D892	VE-30001318	DIODE	
	D893	VE-30001318	DIODE	
	D894	VE-30001285	DIODE	
	D897	VE-30001329	DIODE	

TRANSISTOR

	Q104	VE-30001457	TR	
	Q106	VE-30001457	TR	
	Q141	VE-30001457	TR	
	Q142	VE-30001457	TR	
	Q307	VE-30001457	TR	
	Q316	VE-30001458	TR	
	Q402	VE-30001457	TR	
	Q403	VE-30001457	TR	
	Q404	VE-30001457	TR	
	Q503	VE-30001457	TR	
	Q504	VE-30001458	TR	
	Q600	VE-30001435	TR	
⚠	Q601	VE-30001441	TR	
	Q602	VE-30001429	TR	
	Q603	VE-30001458	TR	
	Q604	VE-30001457	TR	
	Q605	VE-30001458	TR	
	Q700	VE-30001458	TR	
	Q801	VE-30001386	TR	
	Q802	VE-30001457	TR	
	Q804	VE-30001454	TR	

IC

	IC301	VE-30016113	IC	
	IC403	VE-30014510	IC	
	IC500	VE-20103268	IC	(SERVICE)
	IC501	VE-20093395	PR.IC.	(MICOM)
	IC601	VE-30013985	IC	
	IC700	VE-30013658	IC	
	IC800	VE-30011968	IC	

IC

⚠	Symbol No.	Part No.	Part Name	Description
⚠	IC801	VE-30015087	IC	
	IC802	VE-30001622	IC	
	IC803	VE-30001500	IC	
	IC804	VE-30001622	IC	
	IC818	VE-30001506	IC	

OTHERS

⚠	F801	VE-30001731	FUSE	2.5A 250V 5*20MM
⚠	TH800	VE-30001270	PTC	9 OHM
⚠	TR801	VE-30002104	LINE FILTER	
	TU201	VE-30009637	TUNER	WSP (PLL) 38.9 MK2 - BATC
	X401	VE-30001749	XTAL	
	X402	VE-30015592	XTAL	
	X501	VE-30002851	XTAL	
	X700	VE-30001756	XTAL	
	Z401	VE-30012545	SAW FILTER	
	Z402	VE-30014261	SAW FILTER	
	Z404	VE-30001724	SER FILTER	

CRT SOCKET P.W. BOARD ASS'Y (VE-20094670)

Refer to PARTS LIST in page 30 for this P.W. board

FRONT AV & HEADPHONE P.W. BOARD ASS'Y (VE-20083646)

Refer to PARTS LIST in page 30 for this P.W. board

FRONT CONTROL P.W. BOARD ASS'Y (VE-20100168)

Refer to PARTS LIST in page 30 for this P.W. board

PRINTED WIRING BOARD PARTS LIST

[AV-29BF11EES]

MAIN P.W. BOARD ASS'Y (VE-20103265)

⚠	Symbol No.	Part No.	Part Name	Description
	VARIABLE RESISTOR			
	VR800	VE-30001064	ADJ RES	1/10W 470R VER (MAN)
	RESISTOR			
	R102	VE-30012657	SMD RES.	1/16W 1K J
	R103	VE-30012657	SMD RES.	1/16W 1K J
	R106	VE-30012713	SMD RES.	1/16W 75R J
	R107	VE-30012649	SMD RES.	1/16W 150R J
	R109	VE-30012713	SMD RES.	1/16W 75R J
	R110	VE-30012713	SMD RES.	1/16W 75R J
	R111	VE-30012649	SMD RES.	1/16W 150R J
	R113	VE-30012713	SMD RES.	1/16W 75R J
	R114	VE-30012713	SMD RES.	1/16W 75R J
	R115	VE-30012713	SMD RES.	1/16W 75R J
	R117	VE-30000792	CF RES.	1/4W 75R J
	R118	VE-30012713	SMD RES.	1/16W 75R J
	R121	VE-30012649	SMD RES.	1/16W 150R J
	R122	VE-30000792	CF RES.	1/4W 75R J
	R123	VE-30000792	CF RES.	1/4W 75R J
	R124	VE-30012649	SMD RES.	1/16W 150R J
	R126	VE-30012657	SMD RES.	1/16W 1K J
	R129	VE-30012713	SMD RES.	1/16W 75R J
	R135	VE-30012657	SMD RES.	1/16W 1K J
	R137	VE-30000466	CF RES.	1/4W 1K J
	R138	VE-30012657	SMD RES.	1/16W 1K J
	R139	VE-30012713	SMD RES.	1/16W 75R J
	R141	VE-30012657	SMD RES.	1/16W 1K J
	R145	VE-30012713	SMD RES.	1/16W 75R J
	R149	VE-30012703	SMD RES.	1/16W 56K J
	R151	VE-30012696	SMD RES.	1/16W 47K J
	R152	VE-30000752	CF RES.	1/4W 56K J
	R153	VE-30012657	SMD RES.	1/16W 1K J
	R154	VE-30000723	CF RES.	1/4W 47K J
	R155	VE-30012649	SMD RES.	1/16W 150R J
	R169	VE-30012703	SMD RES.	1/16W 56K J
	R171	VE-30012713	SMD RES.	1/16W 75R J
	R172	VE-30012692	SMD RES.	1/16W 4.7K J
	R174	VE-30012713	SMD RES.	1/16W 75R J
	R175	VE-30012713	SMD RES.	1/16W 75R J
	R176	VE-30012703	SMD RES.	1/16W 56K J
	R201	VE-30012674	SMD RES.	1/16W 27K J
	R202	VE-30012692	SMD RES.	1/16W 4.7K J
	R204	VE-30000459	CF RES.	1/4W 100R J
	R206	VE-30000459	CF RES.	1/4W 100R J
	R319	VE-30014076	SMD RES.	1/16W 4.7R J
	R320	VE-30014076	SMD RES.	1/16W 4.7R J
	R324	VE-30012667	SMD RES.	1/16W 220K J
	R328	VE-30012649	SMD RES.	1/16W 150R J
	R329	VE-30012692	SMD RES.	1/16W 4.7K J
	R332	VE-30012641	SMD RES.	1/16W 10K J
	R333	VE-30012702	SMD RES.	1/16W 560R J
	R338	VE-30012641	SMD RES.	1/16W 10K J
	R340	VE-30012644	SMD RES.	1/16W 12K J
	R341	VE-30012702	SMD RES.	1/16W 560R J
	R343	VE-30012659	SMD RES.	1/16W 2.2K J
	R370	VE-30012669	SMD RES.	1/16W 22K J
	R371	VE-30012669	SMD RES.	1/16W 22K J
	R391	VE-30012696	SMD RES.	1/16W 47K J
	R417	VE-30012510	SMD RES.	1/16W 100R J
	R418	VE-30012510	SMD RES.	1/16W 100R J
	R419	VE-30012649	SMD RES.	1/16W 150R J
	R420	VE-30000466	CF RES.	1/4W 1K J
	R421	VE-30012650	SMD RES.	1/16W 15K J
	R422	VE-30012659	SMD RES.	1/16W 2.2K J
	R423	VE-30012712	SMD RES.	1/16W 8.2K J
	R425	VE-30012510	SMD RES.	1/16W 100R J
	R426	VE-30012659	SMD RES.	1/16W 2.2K J
	R427	VE-30012674	SMD RES.	1/16W 27K J
	R428	VE-30012510	SMD RES.	1/16W 100R J
	R430	VE-30012702	SMD RES.	1/16W 560R J
	R431	VE-30012674	SMD RES.	1/16W 27K J
	R432	VE-30012707	SMD RES.	1/16W 680R J
	R433	VE-30012683	SMD RES.	1/16W 330K J
	R437	VE-30000466	CF RES.	1/4W 1K J
	R438	VE-30000466	CF RES.	1/4W 1K J
	R439	VE-30012657	SMD RES.	1/16W 1K J
	R440	VE-30012714	SMD RES.	1/16W 820R J
	R441	VE-30012674	SMD RES.	1/16W 27K J
	R442	VE-30000466	CF RES.	1/4W 1K J
	R446	VE-30012714	SMD RES.	1/16W 820R J

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R447	VE-30012714	SMD RES.	1/16W 820R J
	R448	VE-30012683	SMD RES.	1/16W 330K J
	R450	VE-30012702	SMD RES.	1/16W 560R J
	R458	VE-30012510	SMD RES.	1/16W 100R J
	R459	VE-30012668	SMD RES.	1/16W 220R J
	R460	VE-30012668	SMD RES.	1/16W 220R J
	R461	VE-30012668	SMD RES.	1/16W 220R J
	R449	VE-30012659	SMD RES.	1/16W 2.2K J
	R462	VE-30012510	SMD RES.	1/16W 100R J
	R467	VE-30000670	CF RES.	1/4W 330K J
	R468	VE-30000670	CF RES.	1/4W 330K J
	R469	VE-30000628	CF RES.	1/4W 2.7K J
	R471	VE-30014022	SMD RES.	1/16W 47R J
	R472	VE-30012662	SMD RES.	1/16W 2.7K J
	R474	VE-30012662	SMD RES.	1/16W 2.7K J
	R481	VE-30000466	CF RES.	1/4W 1K J
	R482	VE-30012657	SMD RES.	1/16W 1K J
	R483	VE-30012657	SMD RES.	1/16W 1K J
	R485	VE-30012657	SMD RES.	1/16W 1K J
	R486	VE-30012657	SMD RES.	1/16W 1K J
	R487	VE-30012657	SMD RES.	1/16W 1K J
	R507	VE-30000466	CF RES.	1/4W 1K J
	R508	VE-30012510	SMD RES.	1/16W 100R J
	R509	VE-30012641	SMD RES.	1/16W 10K J
	R510	VE-30012702	SMD RES.	1/16W 560R J
	R511	VE-30012657	SMD RES.	1/16W 1K J
	R512	VE-30000495	CF RES.	1/4W 1.2K J
	R513	VE-30000459	CF RES.	1/4W 100R J
	R514	VE-30000459	CF RES.	1/4W 100R J
	R515	VE-30012659	SMD RES.	1/16W 2.2K J
	R516	VE-30012659	SMD RES.	1/16W 2.2K J
	R517	VE-30012692	SMD RES.	1/16W 4.7K J
	R518	VE-30000471	CF RES.	1/4W 10K J
	R519	VE-30012698	SMD RES.	1/16W 5.6K J
	R525	VE-30012649	SMD RES.	1/16W 150R J
	R526	VE-30012641	SMD RES.	1/16W 10K J
	R527	VE-30012692	SMD RES.	1/16W 4.7K J
	R528	VE-30012698	SMD RES.	1/16W 5.6K J
	R529	VE-30012698	SMD RES.	1/16W 5.6K J
	R530	VE-30012698	SMD RES.	1/16W 5.6K J
	R532	VE-30012659	SMD RES.	1/16W 2.2K J
	R533	VE-30012644	SMD RES.	1/16W 12K J
	R534	VE-30000628	CF RES.	1/4W 2.7K J
	R537	VE-30012641	SMD RES.	1/16W 10K J
	R538	VE-30012698	SMD RES.	1/16W 5.6K J
	R539	VE-30012659	SMD RES.	1/16W 2.2K J
	R540	VE-30012644	SMD RES.	1/16W 12K J
	R545	VE-30012644	SMD RES.	1/16W 12K J
	R548	VE-30012641	SMD RES.	1/16W 10K J
	R554	VE-30012641	SMD RES.	1/16W 10K J
	R555	VE-30012659	SMD RES.	1/16W 2.2K J
	R556	VE-30012657	SMD RES.	1/16W 1K J
	R560	VE-30012674	SMD RES.	1/16W 27K J
	R561	VE-30012692	SMD RES.	1/16W 4.7K J
	R568	VE-30000594	CF RES.	1/4W 22K J
	R572	VE-30012659	SMD RES.	1/16W 2.2K J
	R573	VE-30012641	SMD RES.	1/16W 10K J
	R574	VE-30012657	SMD RES.	1/16W 1K J
	R603	VE-30000459	CF RES.	1/4W 100R J
	R604	VE-30012510	SMD RES.	1/16W 100R J
	R606	VE-30000471	CF RES.	1/4W 10K J
	R607	VE-30000554	CF RES.	1/4W 180R J
	R608	VE-30000859	MF RES.	1/2W 1R F
	R609	VE-30000711	CF RES.	1/2W 470R J
	R610	VE-30000599	CF RES.	1/4W 220K J
	R611	VE-30012708	SMD RES.	1/16W 68K J
	R616	VE-30012685	SMD RES.	1/16W 33K J
	R617	VE-30000572	CF RES.	1/4W 2K J
	R630	VE-30012702	SMD RES.	1/16W 560R J
	R634	VE-30000633	CF RES.	1/4W 27K J
	R639	VE-30000471	CF RES.	1/4W 10K J
	R640	VE-30000628	CF RES.	1/4W 2.7K J
	R646	VE-30000775	CF RES.	1/4W 6.8K J
	R647	VE-30000466	CF RES.	1/4W 1K J
⚠	R648	VE-30001246	FUSE RES.	1W 0.47R J
	R650	VE-30012702	SMD RES.	1/16W 560R J
	R651	VE-30012668	SMD RES.	1/16W 220R J
⚠	R656	VE-30001247	FUSE RES.	1/2W 4.7R J
⚠	R657	VE-30001228	FUSE RES.	1/2W 2.2R J
	R662	VE-30012674	SMD RES.	1/16W 27K J
	R666	VE-30000531	CF RES.	1/4W 15K J

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RESISTOR

⚠	Symbol No.	Part No.	Part Name	Description
	R668	VE-30000607	CF RES.	1/4W 2.2R J
	R669	VE-30012510	SMD RES.	1/16W 100R J
	R670	VE-30012510	SMD RES.	1/16W 100R J
	R677	VE-30001124	MO RES.	3W 220R J
	R678	VE-30014022	SMD RES.	1/16W 47R J
	R680	VE-30000477	CF RES.	1/4W 100K J
	R681	VE-30012509	SMD RES.	1/16W 100K J
	R674	VE-30012662	SMD RES.	1/16W 2.7K J
⚠	R675	VE-30001208	FUSE RES.	1W 10R J
	R682	VE-30017082	WW RES.	5W 75R J RAD.
	R683	VE-30017083	WW RES.	5W 2.2K J RAD.
	R689	VE-30000718	CF RES.	1/4W 4.7K J
	R690	VE-30000466	CF RES.	1/4W 1K J
	R691	VE-30012696	SMD RES.	1/16W 47K J
	R692	VE-30012509	SMD RES.	1/16W 100K J
	R693	VE-30012708	SMD RES.	1/16W 68K J
	R694	VE-30000689	CF RES.	1/4W 3.9K J
	R695	VE-30000775	CF RES.	1/4W 6.8K J
	R696-Y	VE-30001350	ZENER DIODE	12V
	R697	VE-30000712	CF RES.	1/4W 470R J
	R698	VE-30012657	SMD RES.	1/16W 1K J
	R700	VE-30012649	SMD RES.	1/16W 150R J
	R701	VE-30000459	CF RES.	1/4W 100R J
	R703	VE-30000459	CF RES.	1/4W 100R J
	R705	VE-30000459	CF RES.	1/4W 100R J
	R715	VE-30012702	SMD RES.	1/16W 560R J
	R717	VE-30012702	SMD RES.	1/16W 560R J
	R719	VE-30012657	SMD RES.	1/16W 1K J
	R721	VE-30012510	SMD RES.	1/16W 100R J
	R722	VE-30012510	SMD RES.	1/16W 100R J
	R723	VE-30012510	SMD RES.	1/16W 100R J
	R724	VE-30012510	SMD RES.	1/16W 100R J
	R801	VE-30000718	CF RES.	1/4W 4.7K J
	R803	VE-30012659	SMD RES.	1/16W 2.2K J
	R805	VE-30000650	CF RES.	1/4W 33R J
	R806	VE-30000982	MF RES.	1/4W 4.7K J
	R807	VE-30001173	MO RES.	1W 0.47R J
	R809	VE-30007784	MO RES.	5W 33K J(RADIAL)
⚠	R810	VE-30001257	MG RES.	1/2W 4.7M J
	R811	VE-30000718	CF RES.	1/4W 4.7K J
	R812	VE-30012641	SMD RES.	1/16W 10K J
	R813	VE-30000466	CF RES.	1/4W 1K J
	R814	VE-30000466	CF RES.	1/4W 1K J
	R817	VE-30000880	MF RES.	1/4W 130K F
	R818	VE-30012675	SMD RES.	1/16W 2K J
	R819	VE-30000526	CF RES.	1/4W 1.5K J
	R828	VE-30000530	CF RES.	1/2W 15K J
	R829	VE-30000530	CF RES.	1/2W 15K J
	R834	VE-30001159	MO RES.	1W 0.33R J
	R836	VE-30012662	SMD RES.	1/16W 2.7K J
	R839	VE-30000526	CF RES.	1/4W 1.5K J
	R842	VE-30014128	SMD RES.	1/16W 33R J
	R844	VE-30012641	SMD RES.	1/16W 10K J
	R845	VE-30012509	SMD RES.	1/16W 100K J
	R846	VE-30012692	SMD RES.	1/16W 4.7K J
	R847	VE-30014128	SMD RES.	1/16W 33R J
	R848	VE-30012641	SMD RES.	1/16W 10K J
	R849	VE-30012510	SMD RES.	1/16W 100R J
	R851	VE-30000718	CF RES.	1/4W 4.7K J
	R852	VE-30000650	CF RES.	1/4W 33R J
	R853	VE-30012642	SMD RES.	1/16W 120K J
	R855	VE-30000459	CF RES.	1/4W 100R J
	R856	VE-30012694	SMD RES.	1/16W 470K J
	R857	VE-30001263	WW RES.	5W 3.9R J (RAD)

CAPACITOR

	C141	VE-30007081	EL CAP.	4.7UF 50V M (NPL)
	C142	VE-30007081	EL CAP.	4.7UF 50V M (NPL)
	C143	VE-30012589	SMD CAP.	4.7NF 50V K
	C144	VE-30012589	SMD CAP.	4.7NF 50V K
	C145	VE-30012589	SMD CAP.	4.7NF 50V K
	C146	VE-30012589	SMD CAP.	4.7NF 50V K
	C147	VE-30012589	SMD CAP.	4.7NF 50V K
	C148	VE-30012589	SMD CAP.	4.7NF 50V K
	C149	VE-30012589	SMD CAP.	4.7NF 50V K
	C150	VE-30012589	SMD CAP.	4.7NF 50V K
	C155	VE-30012560	SMD CAP.	100PF 50V J
	C157	VE-30012560	SMD CAP.	100PF 50V J
	C159	VE-30000352	EL CAP.	100UF 16V M
	C160	VE-30000345	EL CAP.	10UF 50V M
	C161	VE-30000345	EL CAP.	10UF 50V M

CAPACITOR

⚠	Symbol No.	Part No.	Part Name	Description
	C162	VE-30012573	SMD CAP.	47PF 50V J
	C164	VE-30012692	SMD RES.	1/16W 4.7K J
	C165	VE-30000413	EL CAP.	4.7UF 50V M
	C201	VE-30000400	EL CAP.	47UF 50V M
	C205	VE-30000345	EL CAP.	10UF 50V M
	C206	VE-30012610	SMD CAP.	10NF 50V J
	C207	VE-30012610	SMD CAP.	10NF 50V J
	C230	VE-30016654	SMD CAP.	100NF 16V K R
	C246	VE-30000295	CER CAP.	100NF 50V Z F
	C303	VE-30000100	MKT CAP.	330NF 63V J
	C305	VE-30012590	SMD CAP.	47NF 50V K
	C310	VE-30000345	EL CAP.	10UF 50V M
	C333	VE-30000083	MKT CAP.	150NF 63V J
	C363	VE-30000083	MKT CAP.	150NF 63V J
	C364	VE-30012590	SMD CAP.	47NF 50V K
	C366	VE-30000407	EL CAP.	470UF 16V M
	C368	VE-30012590	SMD CAP.	47NF 50V K
	C404	VE-30000190	CER CAP.	100PF 50V J CH
	C408	VE-30012586	SMD CAP.	22NF 50V K
	C409	VE-30000345	EL CAP.	10UF 50V M
	C410	VE-30000384	EL CAP.	2.2UF 50V M
	C411	VE-30000345	EL CAP.	10UF 50V M
	C412	VE-30016654	SMD CAP.	100NF 16V K R
	C413	VE-30000362	EL CAP.	1UF 50V M
	C414	VE-30012585	SMD CAP.	2.2NF 50V K R
	C415	VE-30012581	SMD CAP.	1NF 50V K R
	C416	VE-30000362	EL CAP.	1UF 50V M
	C417	VE-30000362	EL CAP.	1UF 50V M
	C418	VE-30016654	SMD CAP.	100NF 16V K R
	C419	VE-30000384	EL CAP.	2.2UF 50V M
	C420	VE-30000100	MKT CAP.	330NF 63V J
	C422	VE-30000352	EL CAP.	100UF 16V M
	C423	VE-30000352	EL CAP.	100UF 16V M
	C424	VE-30000352	EL CAP.	100UF 16V M
	C425	VE-30016654	SMD CAP.	100NF 16V K R
	C427	VE-30016654	SMD CAP.	100NF 16V K R
	C429	VE-30012589	SMD CAP.	4.7NF 50V K
	C430	VE-30016654	SMD CAP.	100NF 16V K R
	C431	VE-30000362	EL CAP.	1UF 50V M
	C432	VE-30016654	SMD CAP.	100NF 16V K R
	C433	VE-30000345	EL CAP.	10UF 50V M
	C434	VE-30016654	SMD CAP.	100NF 16V K R
	C435	VE-30016654	SMD CAP.	100NF 16V K R
	C436	VE-30000109	MKT CAP.	470NF 63V J
	C437	VE-30016654	SMD CAP.	100NF 16V K R
	C438	VE-30016654	SMD CAP.	100NF 16V K R
	C439	VE-30016654	SMD CAP.	100NF 16V K R
	C440	VE-30000295	CER CAP.	100NF 50V Z F
	C441	VE-30012582	SMD CAP.	10NF 50V K R
	C442	VE-30000109	MKT CAP.	470NF 63V J
	C443	VE-30000362	EL CAP.	1UF 50V M
	C444	VE-30000384	EL CAP.	2.2UF 50V M
	C448	VE-30012586	SMD CAP.	22NF 50V K
	C449	VE-30012560	SMD CAP.	100PF 50V J
	C453	VE-30000352	EL CAP.	100UF 16V M
	C455	VE-30000345	EL CAP.	10UF 50V M
	C457	VE-30012578	SMD CAP.	68PF 50V J
	C459	VE-30012560	SMD CAP.	100PF 50V J
	C501	VE-30016654	SMD CAP.	100NF 16V K R
	C502	VE-30000400	EL CAP.	47UF 50V M
	C504	VE-30016654	SMD CAP.	100NF 16V K R
	C505	VE-30012589	SMD CAP.	4.7NF 50V K
	C507	VE-30000345	EL CAP.	10UF 50V M
	C510	VE-30016654	SMD CAP.	100NF 16V K R
	C511	VE-30012566	SMD CAP.	22PF 50V J
	C513	VE-30000345	EL CAP.	10UF 50V M
	C514	VE-30016654	SMD CAP.	100NF 16V K R
	C515	VE-30012560	SMD CAP.	100PF 50V J
	C517	VE-30016654	SMD CAP.	100NF 16V K R
	C518	VE-30016654	SMD CAP.	100NF 16V K R
	C519	VE-30012560	SMD CAP.	100PF 50V J
	C520	VE-30012560	SMD CAP.	100PF 50V J
	C521	VE-30012562	SMD CAP.	15PF 50V J
	C522	VE-30012562	SMD CAP.	15PF 50V J
	C523	VE-30012585	SMD CAP.	2.2NF 50V K R
	C524	VE-30012566	SMD CAP.	22PF 50V J
	C525	VE-30012566	SMD CAP.	22PF 50V J
	C526	VE-30016654	SMD CAP.	100NF 16V K R
	C527	VE-30000345	EL CAP.	10UF 50V M
	C529	VE-30012589	SMD CAP.	4.7NF 50V K
	C530	VE-30012589	SMD CAP.	4.7NF 50V K
	C532	VE-30016654	SMD CAP.	100NF 16V K R
	C536	VE-30000295	CER CAP.	100NF 50V Z F

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⚠	Symbol No.	Part No.	Part Name	Description
	CAPACITOR			
	C541	VE-30000362	EL CAP.	1UF 50V M
	C542	VE-30000107	MKT CAP.	47NF 250V J
	C543	VE-30000431	CER CAP.	100PF 1KV M
	C544	VE-30000345	EL CAP.	10UF 50V M
	C547	VE-30000345	EL CAP.	10UF 50V M
	C565	VE-30016654	SMD CAP.	100NF 16V K R
	C566	VE-30016654	SMD CAP.	100NF 16V K R
	C567	VE-30000431	CER CAP.	100PF 1KV M
	C602	VE-30017319	MKT CAP.	120NF 63V J
	C604	VE-30000356	EL CAP.	100UF 63V M
	C605	VE-30000360	EL CAP.	1000UF 25V M
	C607	VE-30012581	SMD CAP.	1NF 50V K R
⚠	C618	VE-30000168	MKP CAP.	6.2NF 1.6KV 3.5%
⚠	C621	VE-30000136	MKP CAP.	12NF 2000V %3.5
	C622	VE-30012003	MKP CAP.	18NF 630V J
	C623	VE-30000406	EL CAP.	47UF 250V M (HR)
⚠	C625	VE-30000177	MKP CAP.	820NF 250V J
	C627	VE-30000162	MKP CAP.	470NF 250V J
	C629	VE-30013003	MKP CAP.	1UF 250V J P=15
	C632	VE-30000100	MKT CAP.	330NF 63V J
	C635	VE-30000385	EL CAP.	2.2UF 250V M
	C636	VE-30000387	EL CAP.	33UF 50V M
	C640	VE-30000100	MKT CAP.	330NF 63V J
	C641	VE-30000090	MKT CAP.	22NF 100V J
	C642	VE-30000407	EL CAP.	470UF 16V M
	C644	VE-30000409	EL CAP.	470UF 25V M
	C645	VE-30000090	MKT CAP.	22NF 100V J
	C646	VE-30000100	MKT CAP.	330NF 63V J
	C647	VE-30007748	EL CAP.	1000UF 35V M
	C648	VE-30000394	EL CAP.	3.3UF 160V M
	C649	VE-30000295	CER CAP.	100NF 50V Z F
	C652	VE-30000330	CER CAP.	4.7NF 50V K B
	C653	VE-30000107	MKT CAP.	47NF 250V J
	C700	VE-30012565	SMD CAP.	1.8PF 50V J CH
	C701	VE-30012565	SMD CAP.	1.8PF 50V J CH
	C702	VE-30012576	SMD CAP.	56PF 50V J CH
	C703	VE-30012576	SMD CAP.	56PF 50V J CH
	C704	VE-30012576	SMD CAP.	56PF 50V J CH
	C705	VE-30000345	EL CAP.	10UF 50V M
	C706	VE-30000345	EL CAP.	10UF 50V M
	C708	VE-30016654	SMD CAP.	100NF 16V K R
	C712	VE-30000345	EL CAP.	10UF 50V M
	C713	VE-30016654	SMD CAP.	100NF 16V K R
	C714	VE-30000100	MKT CAP.	330NF 63V J
	C716	VE-30000100	MKT CAP.	330NF 63V J
	C717	VE-30000100	MKT CAP.	330NF 63V J
	C718	VE-30000100	MKT CAP.	330NF 63V J
	C719	VE-30016654	SMD CAP.	100NF 16V K R
	C720	VE-30000345	EL CAP.	10UF 50V M
	C721	VE-30000100	MKT CAP.	330NF 63V J
	C723	VE-30000100	MKT CAP.	330NF 63V J
	C724	VE-30000345	EL CAP.	10UF 50V M
	C729	VE-30016654	SMD CAP.	100NF 16V K R
	C730	VE-30000393	EL CAP.	3.3UF 50V M
	C733	VE-30000345	EL CAP.	10UF 50V M
	C734	VE-30000345	EL CAP.	10UF 50V M
	C735	VE-30016654	SMD CAP.	100NF 16V K R
	C736	VE-30000345	EL CAP.	10UF 50V M
	C737	VE-30000384	EL CAP.	2.2UF 50V M
	C738	VE-30000384	EL CAP.	2.2UF 50V M
	C739	VE-30000384	EL CAP.	2.2UF 50V M
	C740	VE-30000384	EL CAP.	2.2UF 50V M
	C741	VE-30012589	SMD CAP.	4.7NF 50V K
	C742	VE-30012589	SMD CAP.	4.7NF 50V K
	C745	VE-30016654	SMD CAP.	100NF 16V K R
⚠	C801	VE-30000094	MKT CAP.	220NF AC275V M
⚠	C802	VE-30000094	MKT CAP.	220NF AC275V M
⚠	C803	VE-30000433	CER CAP.	1NF 1KV M B
⚠	C804	VE-30000433	CER CAP.	1NF 1KV M B
	C808	VE-30012590	SMD CAP.	47NF 50V K
	C809	VE-30000421	EL CAP.	220UF 400V M (FOR 28'')
	C810	VE-30000387	EL CAP.	33UF 50V M
	C811	VE-30000161	MKP CAP.	47NF 630V J
	C812	VE-30007708	CER CAP.	1NF 1KV K (PULSE)
⚠	C816	VE-30000440	CER CAP.	2.2NF 4KV M
	C817	VE-30000198	CER CAP.	120PF 500V J SL
	C818	VE-30012590	SMD CAP.	47NF 50V K
	C819	VE-30012590	SMD CAP.	47NF 50V K
	C822	VE-30007308	CER CAP.	220PF 1KV K (PULSE)
	C826	VE-30000406	EL CAP.	47UF 250V M (HR)
	C827	VE-30000411	EL CAP.	4700UF 16V M
	C828	VE-30012590	SMD CAP.	47NF 50V K
	C829	VE-30000407	EL CAP.	470UF 16V M

⚠	Symbol No.	Part No.	Part Name	Description
	CAPACITOR			
	C830	VE-30000383	EL CAP.	2200UF 25V M
	C832	VE-30012590	SMD CAP.	47NF 50V K
	C833	VE-30000407	EL CAP.	470UF 16V M
	C834	VE-30012590	SMD CAP.	47NF 50V K
	C835	VE-30012590	SMD CAP.	47NF 50V K
	C838	VE-30000407	EL CAP.	470UF 16V M
	C839	VE-30000407	EL CAP.	470UF 16V M
	C840	VE-30000407	EL CAP.	470UF 16V M
	C848	VE-30000407	EL CAP.	470UF 16V M
	C850	VE-30000383	EL CAP.	2200UF 25V M
	C851	VE-30012590	SMD CAP.	47NF 50V K
⚠	C852	VE-30000440	CER CAP.	2.2NF 4KV M
	C857	VE-30000106	MKT CAP.	47NF 100V J
	C858	VE-30007708	CER CAP.	1NF 1KV K (PULSE)
	C859	VE-30009208	CER CAP.	470PF 1KV K (PULSE)
	C860	VE-30000296	CER CAP.	100NF 100V Z F
	C872	VE-30007708	CER CAP.	1NF 1KV K (PULSE)
	TRANSF			
	TR600	VE-30002090	LINE DRIVER	
⚠	TR601	VE-30017522	FBT TRF	
⚠	TR802	VE-30018785	SMPS TRF	
	COIL			
	L101	VE-30001971	FERRITE BEAT	
	L102	VE-30001971	FERRITE BEAT	
	L106	VE-30001971	FERRITE BEAT	
	L108	VE-30001971	FERRITE BEAT	
	L109	VE-30001971	FERRITE BEAT	
	L110	VE-30001971	FERRITE BEAT	
	L111	VE-30001971	FERRITE BEAT	
	L112	VE-30001971	FERRITE BEAT	
	L113	VE-30001971	FERRITE BEAT	
	L114	VE-30001971	FERRITE BEAT	
	L115	VE-30001971	FERRITE BEAT	
	L116	VE-30001971	FERRITE BEAT	
	L117	VE-30001971	FERRITE BEAT	
	L201	VE-30001979	FIXED COIL	1UH Q45 M-A
	L210	VE-30001971	FERRITE BEAT	
	L215	VE-30001971	FERRITE BEAT	
	L401	VE-30001971	FERRITE BEAT	
	L402	VE-30001992	FIXED COIL	10UH Q65 K-A
	L403	VE-30001971	FERRITE BEAT	
	L404	VE-30001990	FIXED COIL	6.8UH Q75 K
	L405	VE-30014048	ADJ. COIL	44MHZ Q=64 C=39pF
	L406	VE-30001971	FERRITE BEAT	
	L408	VE-30001992	FIXED COIL	10UH Q65 K-A
	L501	VE-30001971	FERRITE BEAT	
	L502	VE-30001971	FERRITE BEAT	
	L503	VE-30001971	FERRITE BEAT	
	L504	VE-30001971	FERRITE BEAT	
	L600	VE-30002031	FIXED COIL	INJECTION 15MH
	L602	VE-30017085	LINEARITY COIL	2UH
	L603	VE-30016083	FIXED COIL	1MH AK33 HIGH CURREN
	L700	VE-30001971	FERRITE BEAT	
	L701	VE-30001971	FERRITE BEAT	
	L702	VE-30001992	FIXED COIL	10UH Q65 K-A
	L703	VE-30001971	FERRITE BEAT	
	L704	VE-30001971	FERRITE BEAT	
	L801	VE-30002011	CHOKE COIL	150UH 0.82A RAD
	L803	VE-30001992	FIXED COIL	10UH Q65 K-A
	DIODE			
	D101	VE-30007760	ZENER DIODE	
	D104	VE-30007760	ZENER DIODE	
	D105	VE-30007760	ZENER DIODE	
	D106	VE-30007760	ZENER DIODE	
	D107	VE-30007760	ZENER DIODE	
	D303	VE-30001329	DIODE	
	D405	VE-30007763	ZENER DIODE	
	D407	VE-30001284	DIODE	
	D408	VE-30001285	DIODE	
	D409	VE-30001284	DIODE	
	D413	VE-30018526	ZENER DIODE	
	D501	VE-30001285	DIODE	
	D505	VE-30001285	DIODE	
	D506	VE-30001284	DIODE	

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DIODE

⚠	Symbol No.	Part No.	Part Name	Description
	D512	VE-30001285	DIODE	
	D513	VE-30001369	ZENER DIODE	
	D533	VE-30001377	ZENER DIODE	
	D601	VE-30001329	DIODE	
	D603	VE-30001285	DIODE	
	D605	VE-30001320	DIODE	
	D606	VE-30007681	DIODE	
	D609	VE-30001318	DIODE	
	D610	VE-30001318	DIODE	
	D613	VE-30001318	DIODE	
	D614	VE-30001285	DIODE	
	D616	VE-30003696	DIODE	
	D617	VE-30001318	DIODE	
	D651	VE-30001285	DIODE	
	D653	VE-30001285	DIODE	
	D657	VE-30007763	ZENER DIODE	
	D658	VE-30007763	ZENER DIODE	
	D659	VE-30001350	ZENER DIODE	
	D661	VE-30001350	ZENER DIODE	
	D700	VE-30001285	DIODE	
	D701	VE-30001369	ZENER DIODE	
	D800	VE-30001318	DIODE	
	D801	VE-30001372	ZENER DIODE	
	D802	VE-30001318	DIODE	
	D803	VE-30001315	DIODE	
	D804	VE-30001318	DIODE	
	D805	VE-30001315	DIODE	
	D806	VE-30001315	DIODE	
	D808	VE-20092405	CN.ASY.	UF5407+FERRITE
	D809	VE-30001329	DIODE	
	D810	VE-30009366	DIODE	
	D811	VE-30009366	DIODE	
	D812	VE-30001285	DIODE	
	D889	VE-30001384	TR	
⚠	D891	VE-30007758	DIODE	
	D892	VE-30001318	DIODE	
	D893	VE-30001318	DIODE	
	D894	VE-30001285	DIODE	
	D897	VE-30001329	DIODE	

TRANSISTOR

⚠	Symbol No.	Part No.	Part Name	Description
	Q104	VE-30001457	TR	
	Q106	VE-30001457	TR	
	Q141	VE-30001457	TR	
	Q142	VE-30001457	TR	
	Q307	VE-30001457	TR	
	Q316	VE-30001458	TR	
	Q403	VE-30001457	TR	
	Q404	VE-30001457	TR	
	Q503	VE-30001457	TR	
	Q504	VE-30001458	TR	
	Q600	VE-30001435	TR	
⚠	Q601	VE-30001441	TR	
	Q602	VE-30001429	TR	
	Q603	VE-30001458	TR	
	Q604	VE-30001457	TR	
	Q605	VE-30001458	TR	
	Q700	VE-30001458	TR	
	Q801	VE-30001386	TR	
	Q802	VE-30001457	TR	
	Q804	VE-30001454	TR	

IC

⚠	Symbol No.	Part No.	Part Name	Description
	IC301	VE-30016113	IC	
	IC403	VE-30014510	IC	
	IC500	VE-20103266	IC	(SERVICE)
	IC501	VE-20104642	PR.IC.	(MICOM)
	IC601	VE-30013985	IC	
	IC700	VE-30013658	IC	
	IC800	VE-30011968	IC	
⚠	IC801	VE-30015087	IC	
	IC802	VE-30001622	IC	
	IC803	VE-30001500	IC	
	IC804	VE-30001622	IC	
	IC818	VE-30001506	IC	

OTHERS

⚠	Symbol No.	Part No.	Part Name	Description
⚠	F801	VE-30001731	FUSE	2.5A 250V 5*20MM
⚠	TH800	VE-30001270	PTC	9 OHM
⚠	TR801	VE-30002104	LINE FILTER	
	TU201	VE-30009637	TUNER	
	X401	VE-30001749	XTAL	
	X402	VE-30015592	XTAL	
	X501	VE-30002851	XTAL	
	X700	VE-30001756	XTAL	
	Z401	VE-30013163	SAW FILTER	
	Z402	VE-30014261	SAW FILTER	
	Z404	VE-30001724	SER FILTER	

CRT SOCKET P.W. BOARD ASS'Y (VE-20094670)

Refer to PARTS LIST in page 30 for this P.W. board

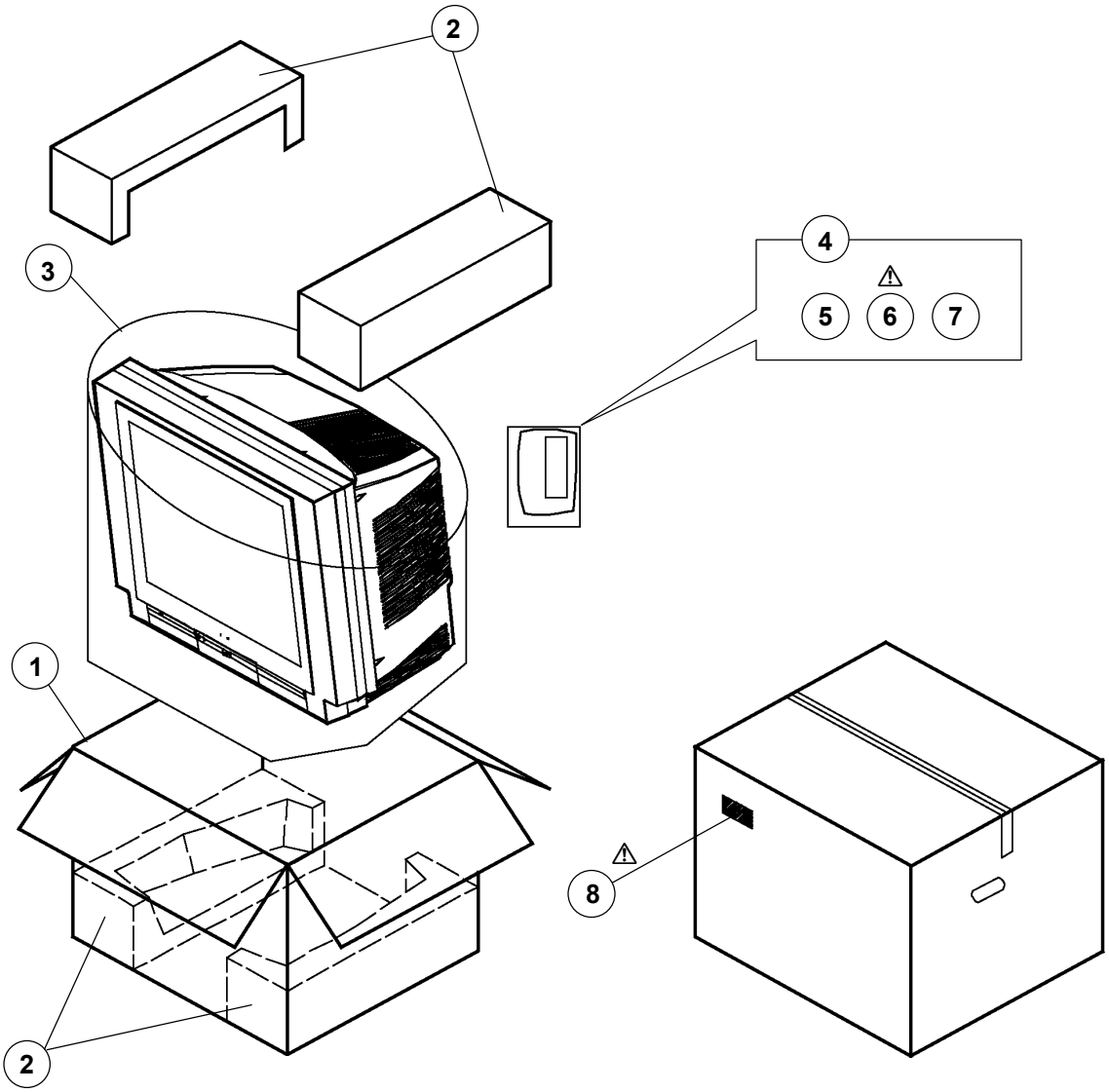
FRONT AV & HEADPHONE P.W. BOARD ASS'Y (VE-20083646)

Refer to PARTS LIST in page 30 for this P.W. board

FRONT CONTROL P.W. BOARD ASS'Y (VE-20100168)

Refer to PARTS LIST in page 30 for this P.W. board

PACKING



PACKING PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description
	1	VE-50028949	CARTON BOX	[AV-29BF11ENS]
	1	VE-50028950	CARTON BOX	[AV-29BF11ENS(for GER models)]
	1	VE-50028947	CARTON BOX	[AV-29BF11EPS]
	1	VE-50028945	CARTON BOX	[AV-29BF11EES]
	2	VE-20048248	CUSHION ASSY	4 pcs in 1 set
	3	VE-50026637	POLY BAG	(1250*1000)
	4	VE-70000587	POLY BAG	
	5	VE-30017763	REMOTE CONTROL UNIT	(RM-C1100)
⚠	6	VE-50028493	INST BOOK	[AV-29BF11ENS]
⚠	6	VE-50028296	INST BOOK	[AV-29BF11EPS]
⚠	6	VE-50028326	INST BOOK	[AV-29BF11EES]
	7	BT-54013-2TK	WARRANTY CARD	
⚠	8	VE-20103656	LABEL	[AV-29BF11ENS]
⚠	8	VE-20103677	LABEL	[AV-29BF11ENS(for GER models)]
⚠	8	VE-20103679	LABEL	[AV-29BF11ENS(for ITA models)]
⚠	8	VE-20103654	LABEL	[AV-29BF11EPS]
⚠	8	VE-20103640	LABEL	[AV-29BF11EES]
⚠	8	VE-20103638	LABEL	[AV-29BF11EES(for POL models)]

JVC
VICTOR COMPANY OF JAPAN, LIMITED
HOME AV NETWORK BUSINESS UNIT 12, 3-chome, Moriya-cho, Kanagawa-ku, Yokohama, Kanagawa-prefecture, 221-8528, Japan

Printed in Japan
0209 WPC
DP205851

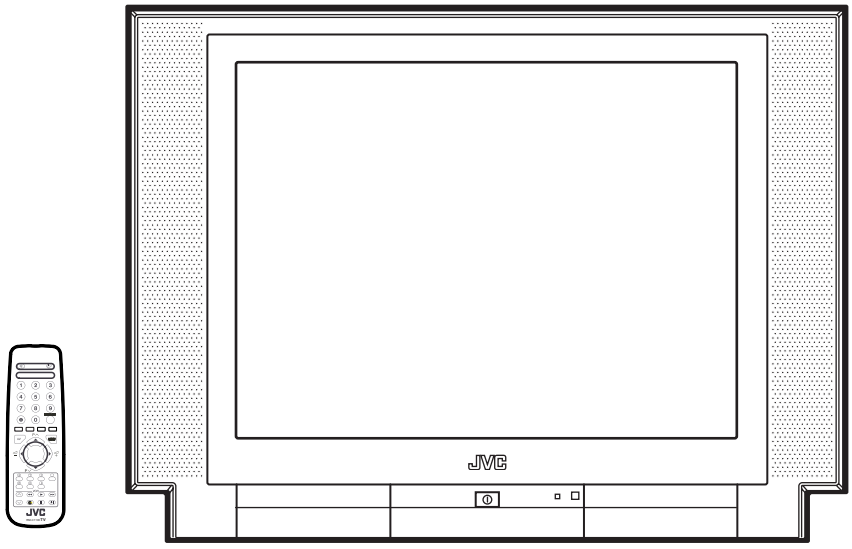
JVC

SCHEMATIC DIAGRAMS

COLOUR TELEVISION

AV-29BF11ENS
AV-29BF11EPS
AV-29BF11EES

CD-ROM No.SML200209



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■ SEMICONDUCTOR SHAPES ---------- 2-2
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■ CIRCUIT DIAGRAMS ---------- 2-5
■ PATTERN DIAGRAMS ---------- 2-21

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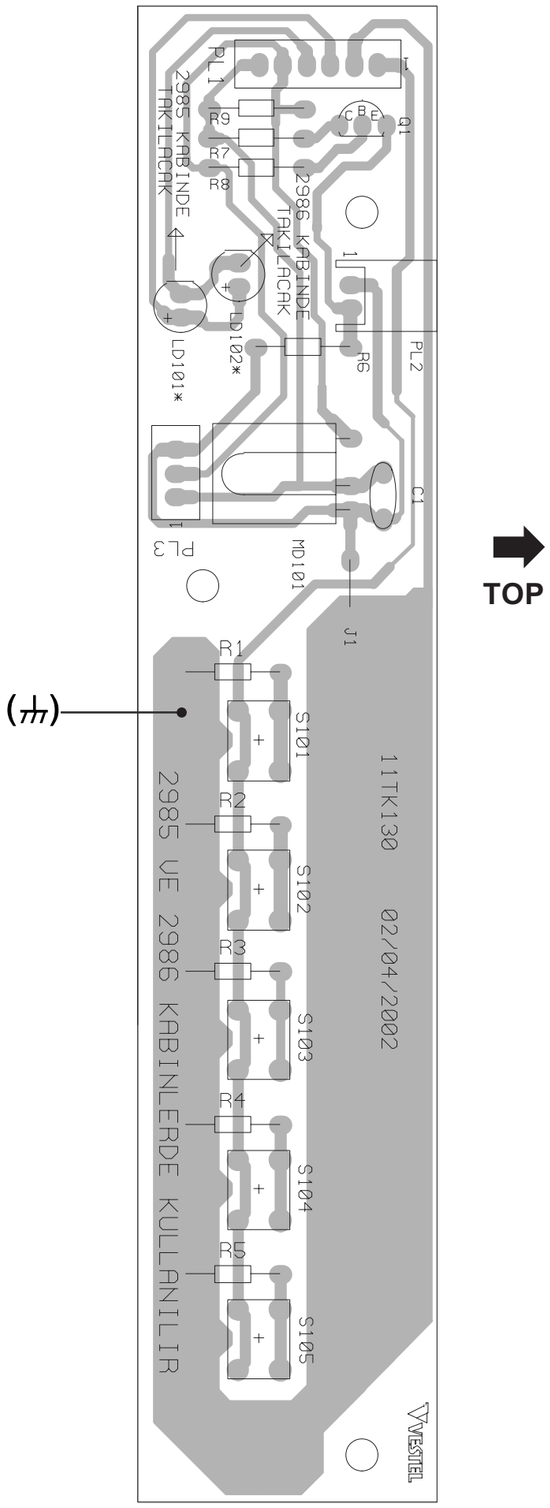
No.52084
Sep. 2002

FRONT CONTROL PWB PATTERN



TOP

VP0209
DP8080

AV-29BF11ENS
AV-29BF11EPS
AV-29BF11EES

AV-29BF11ENS
AV-29BF11EPS
AV-29BF11EES

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal	: Colour bar signal
(2)Setting positions of each knob/button and variable resistor	: Original setting position when shipped
(3)Internal resistance of tester	:DC 20kΩ /V
(4)Oscilloscope sweeping time	:H ⇒ 20µS/div :V ⇒ 5mS/div :Others ⇒ Sweeping time is specified
(5)Voltage values	:All DC voltage values

∗ Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

No unit	:[Ω]
K	:[K Ω]
M	:[M Ω]

● Type

No indication	:Carbon resistor
OMR	:Oxide metal film resistor
MFR	:Metal film resistor
MPR	:Metal plate resistor
UNFR	:Uninflammable resistor
FR	:Fusible resistor

∗ Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

● Capacitance value

1 or higher	:[pF]
less than 1	:[µF]

● Withstand voltage

No indication	:DC50[V]
Others	:DC withstand voltage [V]
AC indicated	:AC withstand voltage [V]

∗ Electrolytic Capacitors
47/50[Example]:Capacitance value [µF]/withstand voltage[V]

● Type

No indication	:Ceramic capacitor
MM	:Metalized mylar capacitor
PP	:Polypropylene capacitor
MPP	:Metalized polypropylene capacitor
MF	:Metalized film capacitor
TF	:Thin film capacitor
BP	:Bipolar electrolytic capacitor
TAN	:Tantalum capacitor

(3)Coils

No unit	:[µH]
Others	:As specified

4.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE side GND and the ISOLATED(NEUTRAL) side GND.Therefore, care must be taken for the following points.

(1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

(2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected , a fuse or any parts will be broken.

◇ **Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.**

NOTE

◇ **Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.**
When ordering parts, please use the numbers that appear in the Parts List.

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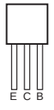
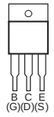
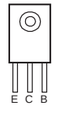
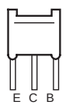
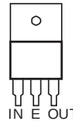
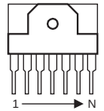
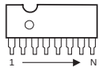
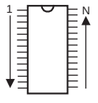
SEMICONDUCTOR SHAPES

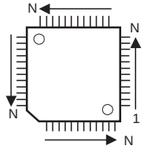
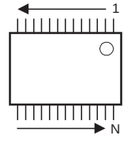
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR

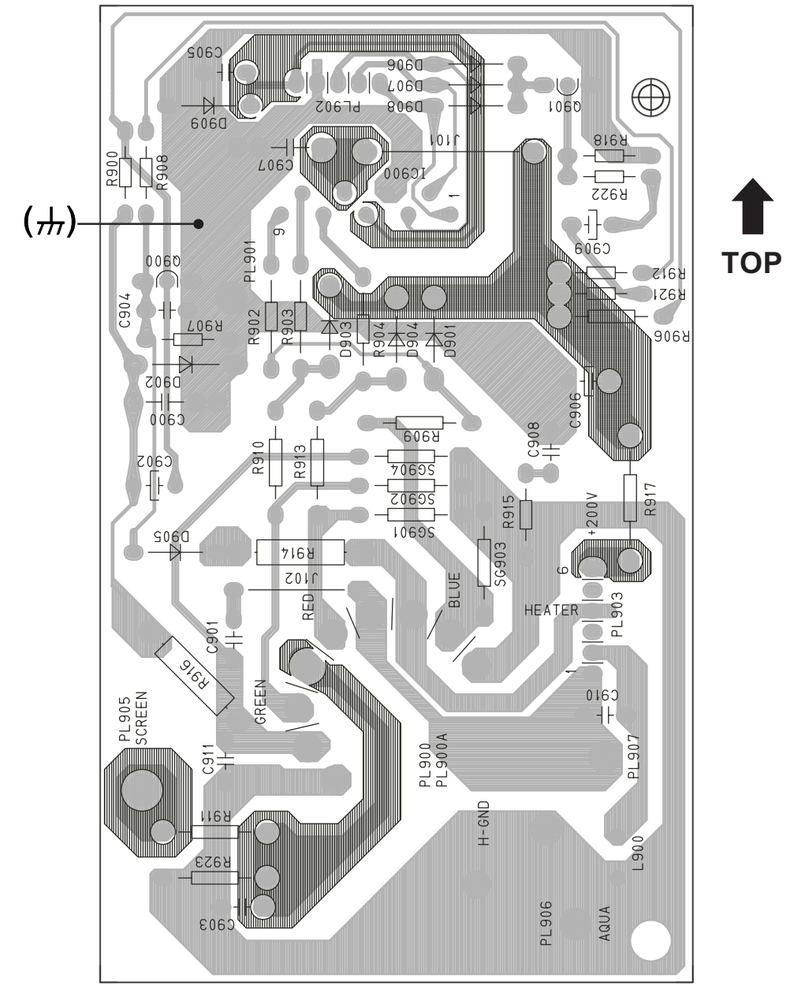
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

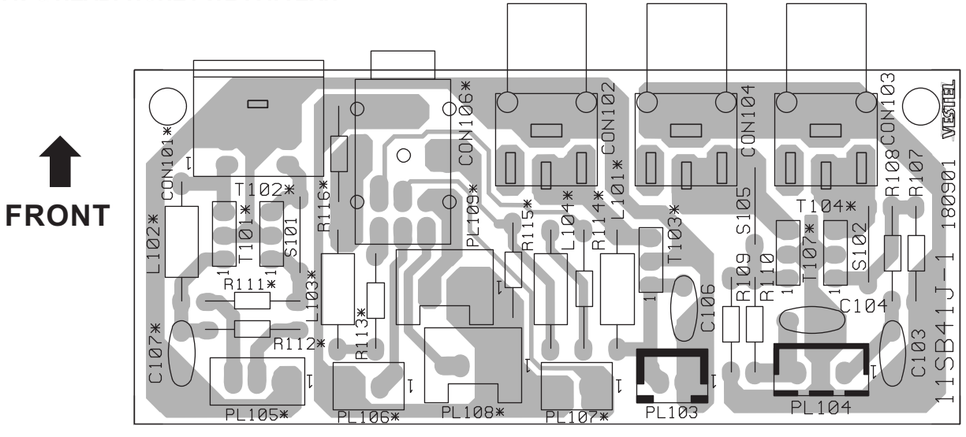
CHIP IC

TOP VIEW		
		

CRT SOCKET PWB PATTERN

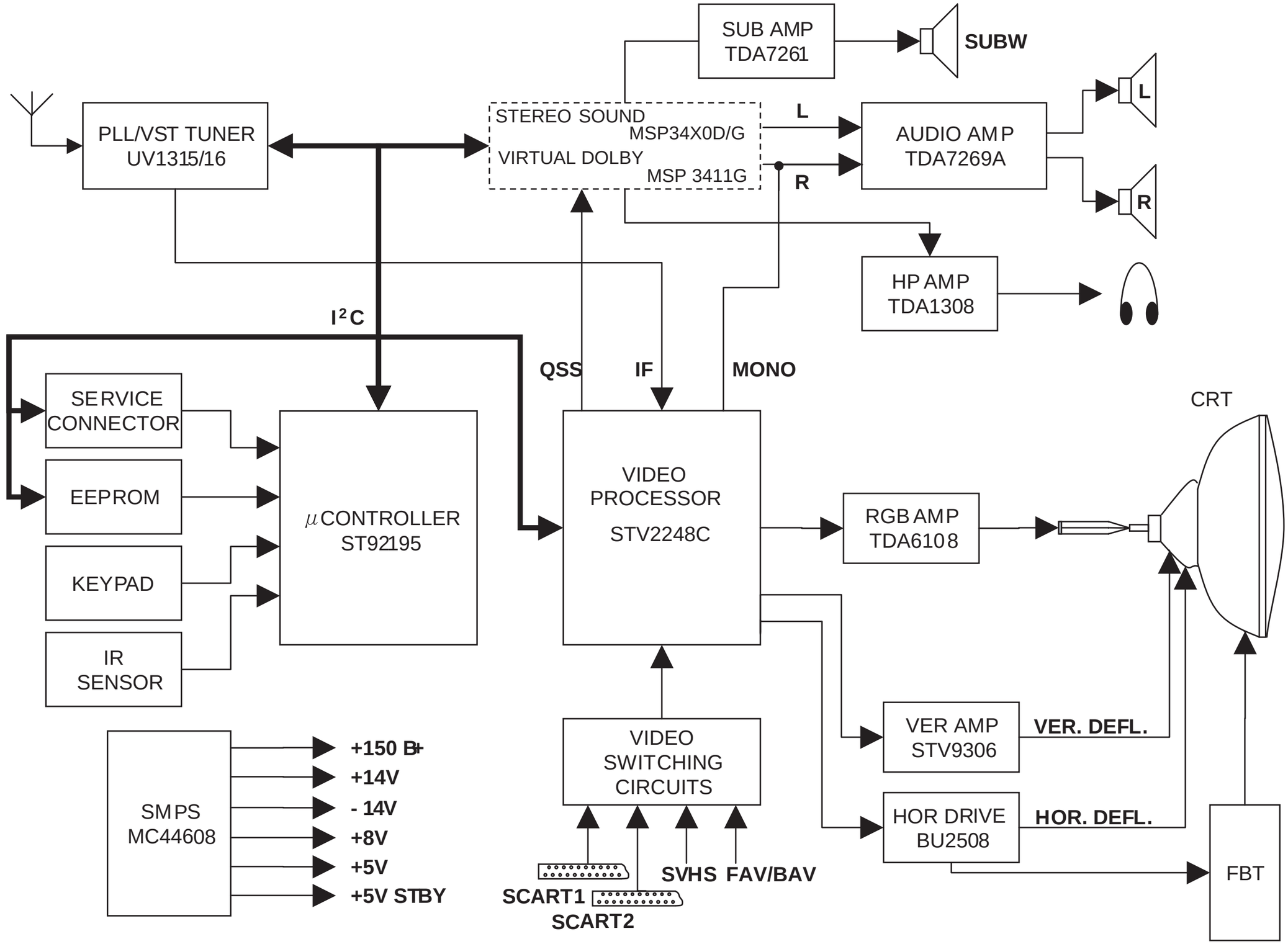


FRONT AV & HEADPHONE PWB PATTERN

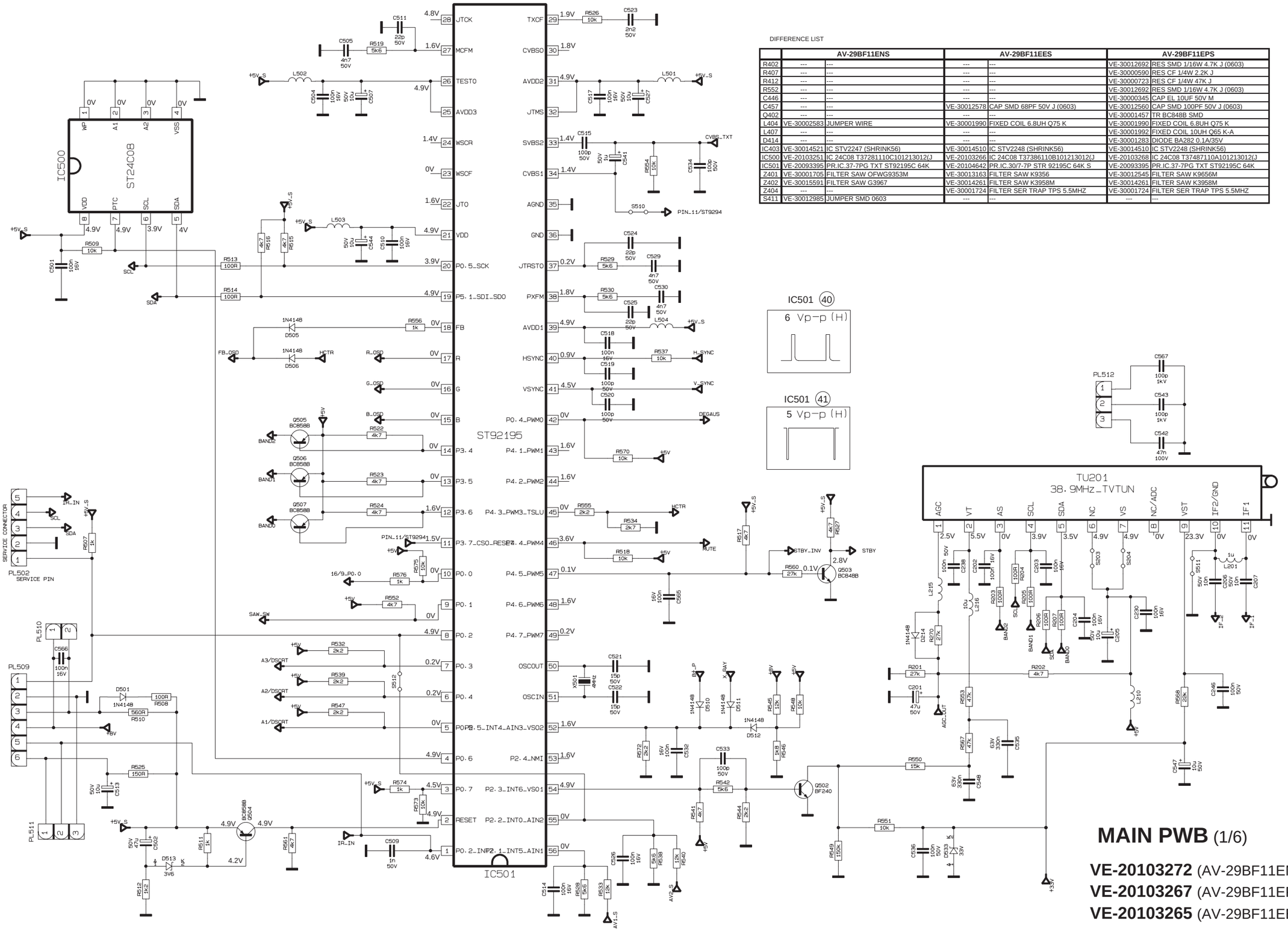


AV-29BF11ENS
AV-29BF11EPS
AV-29BF11EES

BLOCK DIAGRAM



CIRCUIT DIAGRAMS *MAIN PWB CIRCUIT DIAGRAM [1/6]*



DIFFERENCE LIST

	AV-29BF11ENS		AV-29BF11EES		AV-29BF11EPS	
R402	---	---	---	---	VE-30012692	RES SMD 1/16W 4.7K J (0603)
R407	---	---	---	---	VE-30000590	RES CF 1/4W 2.2K J
R412	---	---	---	---	VE-30000723	RES CF 1/4W 47K J
R552	---	---	---	---	VE-30012692	RES SMD 1/16W 4.7K J (0603)
C446	---	---	---	---	VE-30000345	CAP EL 10UF 50V M
C457	---	---	VE-30012578	CAP SMD 68PF 50V J (0603)	VE-30012560	CAP SMD 100PF 50V J (0603)
Q402	---	---	---	---	VE-30001457	TR BC848B SMD
L404	VE-30002583	JUMPER WIRE	VE-30001990	FIXED COIL 6.8UH Q75 K	VE-30001990	FIXED COIL 6.8UH Q75 K
L407	---	---	---	---	VE-30001992	FIXED COIL 10UH Q65 K-A
D414	---	---	---	---	VE-30001283	DIODE BA282 0.1A/35V
IC403	VE-30014521	IC STV2247 (SHRINK56)	VE-30014510	IC STV2248 (SHRINK56)	VE-30014510	IC STV2248 (SHRINK56)
IC500	VE-20103251	IC 24C08 T37281110C101213012(J	VE-20103266	IC 24C08 T37386110B101213012(J	VE-20103268	IC 24C08 T37487110A101213012(J
IC501	VE-20093395	PR.IC.37-7PG TXT ST92195C 64K	VE-20104642	PR.IC.30/7-7P STR 92195C 64K S	VE-20093395	PR.IC.37-7PG TXT ST92195C 64K
Z401	VE-30001705	FILTER SAW OFWG9353M	VE-30013163	FILTER SAW K9356	VE-30012545	FILTER SAW K9656M
Z402	VE-30015591	FILTER SAW G3967	VE-30014261	FILTER SAW K3958M	VE-30014261	FILTER SAW K3958M
Z404	---	---	VE-30001724	FILTER SER TRAP TPS 5.5MHZ	VE-30001724	FILTER SER TRAP TPS 5.5MHZ
S411	VE-30012985	JUMPER SMD 0603	---	---	---	---

MAIN PWB (1/6)

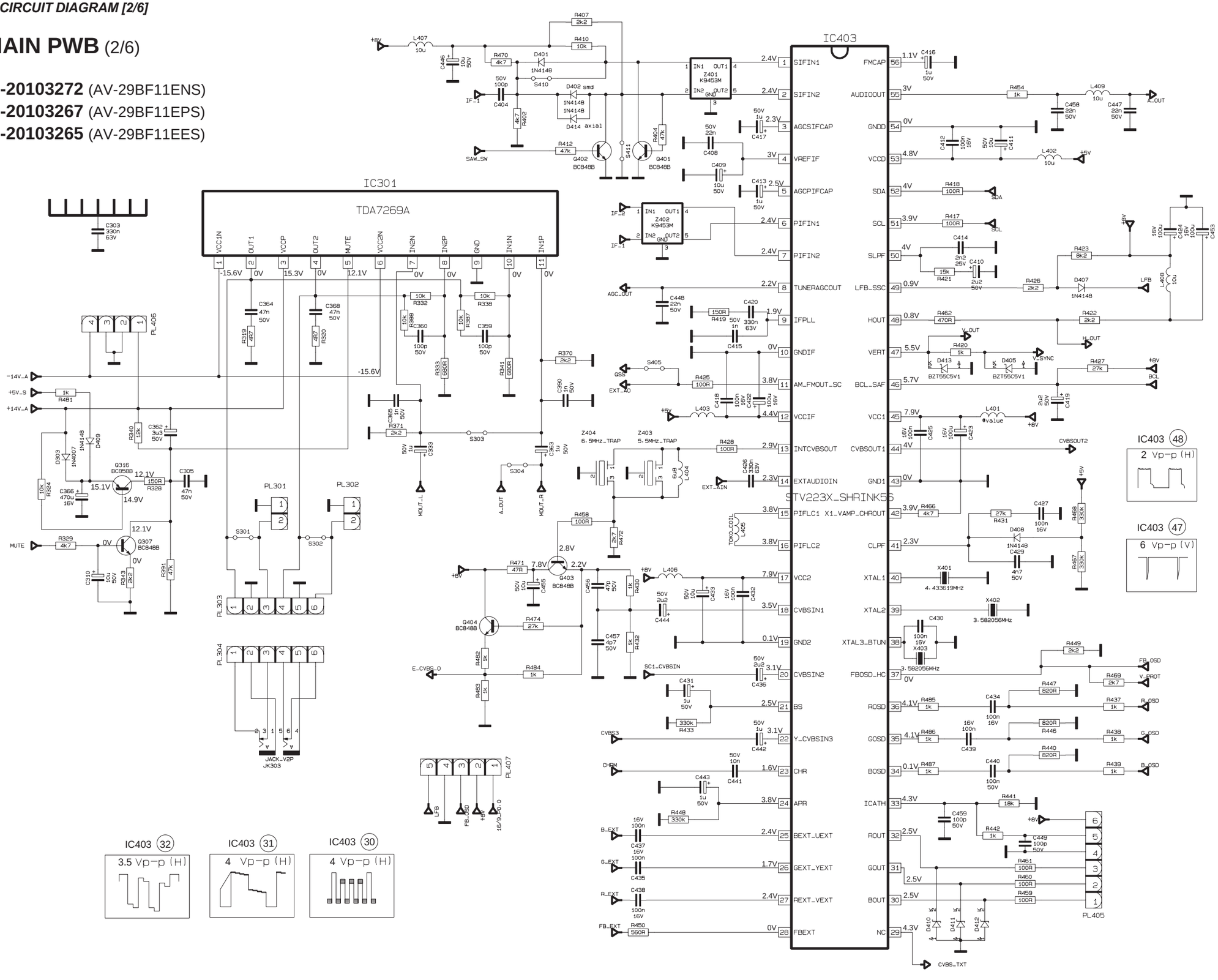
VE-20103272 (AV-29BF11ENS)
VE-20103267 (AV-29BF11EPS)
VE-20103265 (AV-29BF11EES)

AV-29BF11ENS
AV-29BF11EPS
AV-29BF11EES

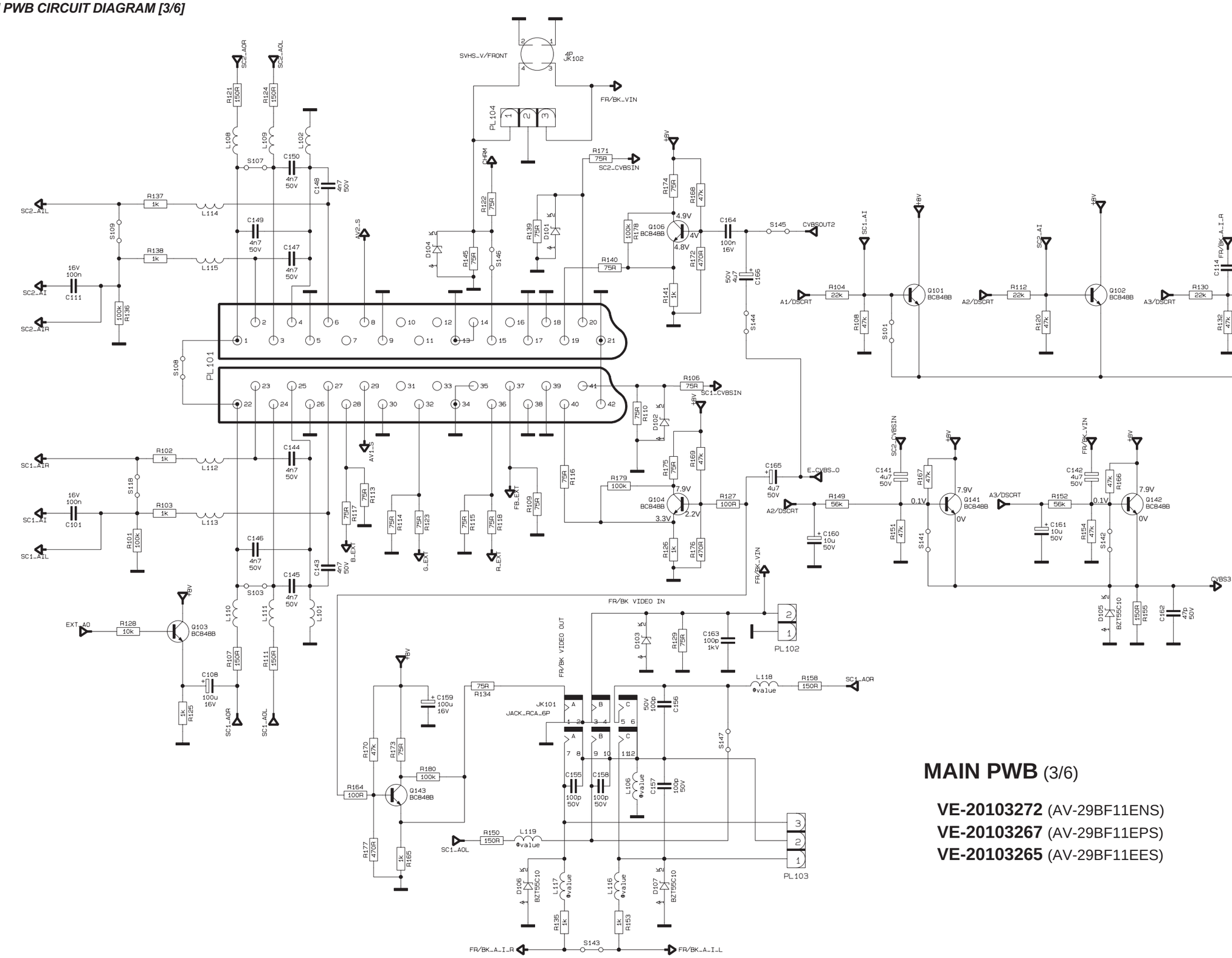
MAIN PWB CIRCUIT DIAGRAM [2/6]

MAIN PWB (2/6)

VE-20103272 (AV-29BF11ENS)
VE-20103267 (AV-29BF11EPS)
VE-20103265 (AV-29BF11EES)



MAIN PWB CIRCUIT DIAGRAM [3/6]



MAIN PWB (3/6)

VE-20103272 (AV-29BF11ENS)
VE-20103267 (AV-29BF11EPS)
VE-20103265 (AV-29BF11EES)

AV-29BF11ENS
AV-29BF11EPS
AV-29BF11EES

MAIN PWB CIRCUIT DIAGRAM [4/6]

MAIN PWB (4/6)

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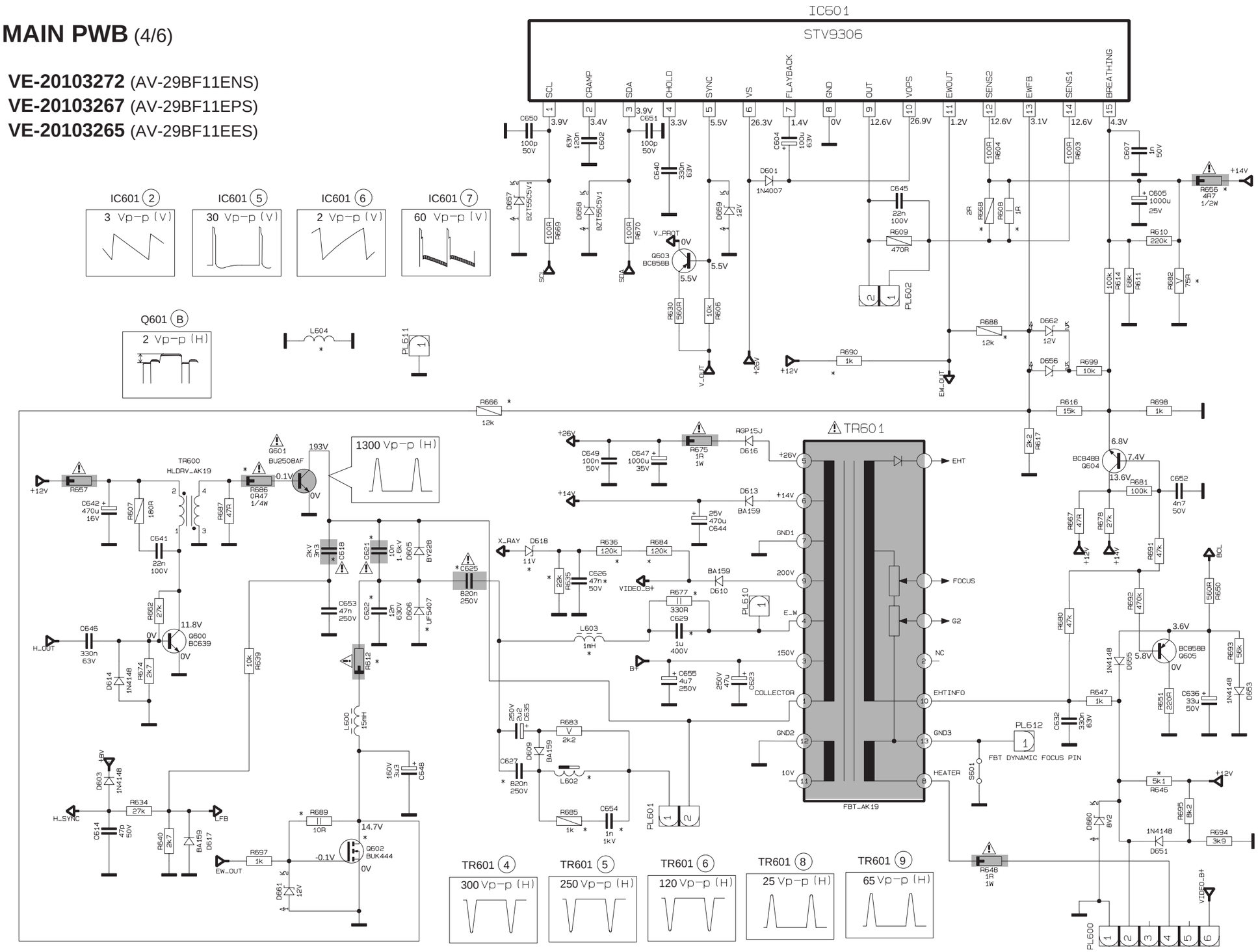
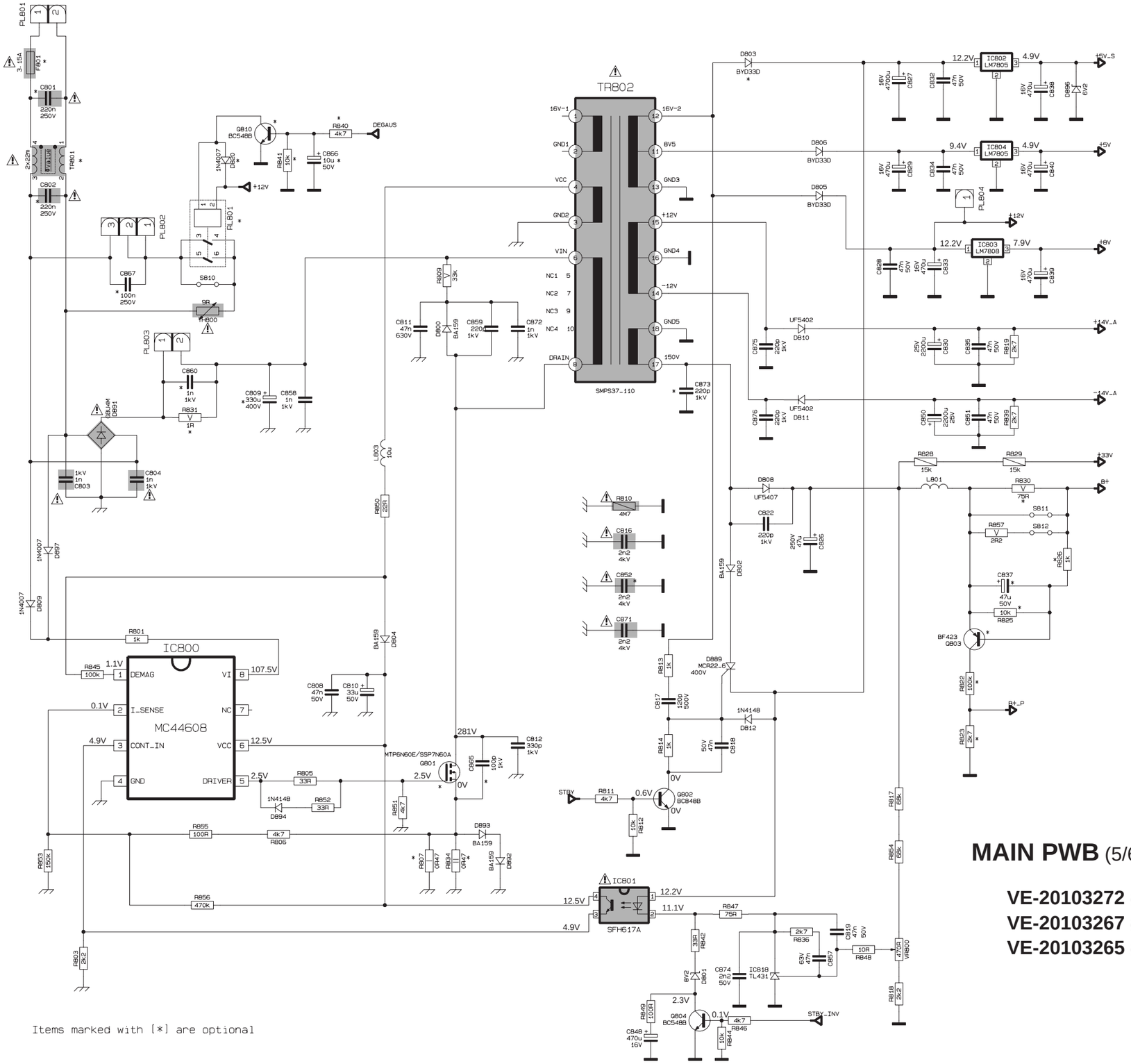
VE-20103267 (AV-29BF11EPS)
VE-20103265 (AV-29BF11EES)



Items marked with [*] are optional

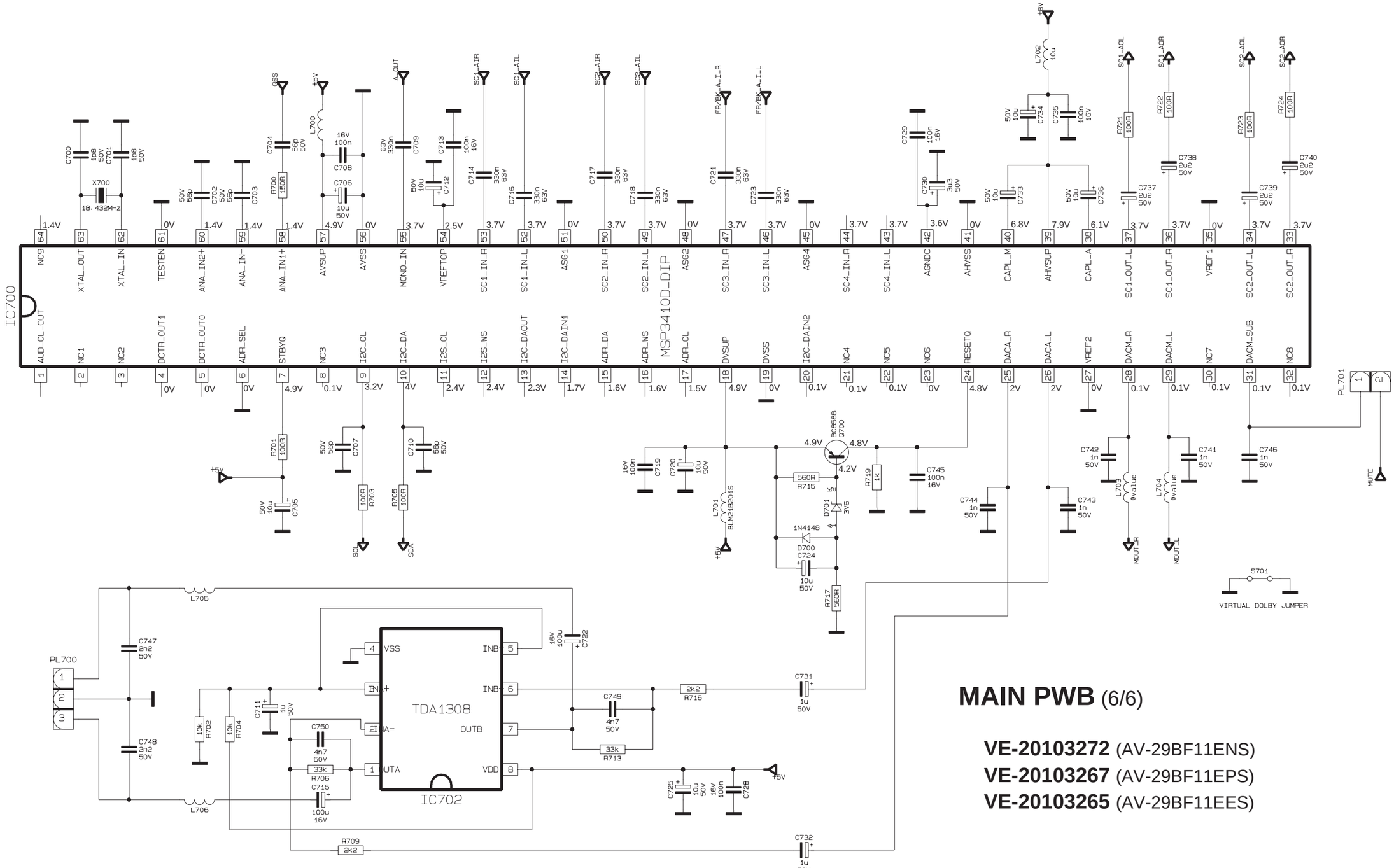
MAIN PWB CIRCUIT DIAGRAM [5/6]



MAIN PWB (5/6)

VE-20103272 (AV-29BF11ENS)
VE-20103267 (AV-29BF11EPS)
VE-20103265 (AV-29BF11EES)

MAIN PWB CIRCUIT DIAGRAM [6/6]

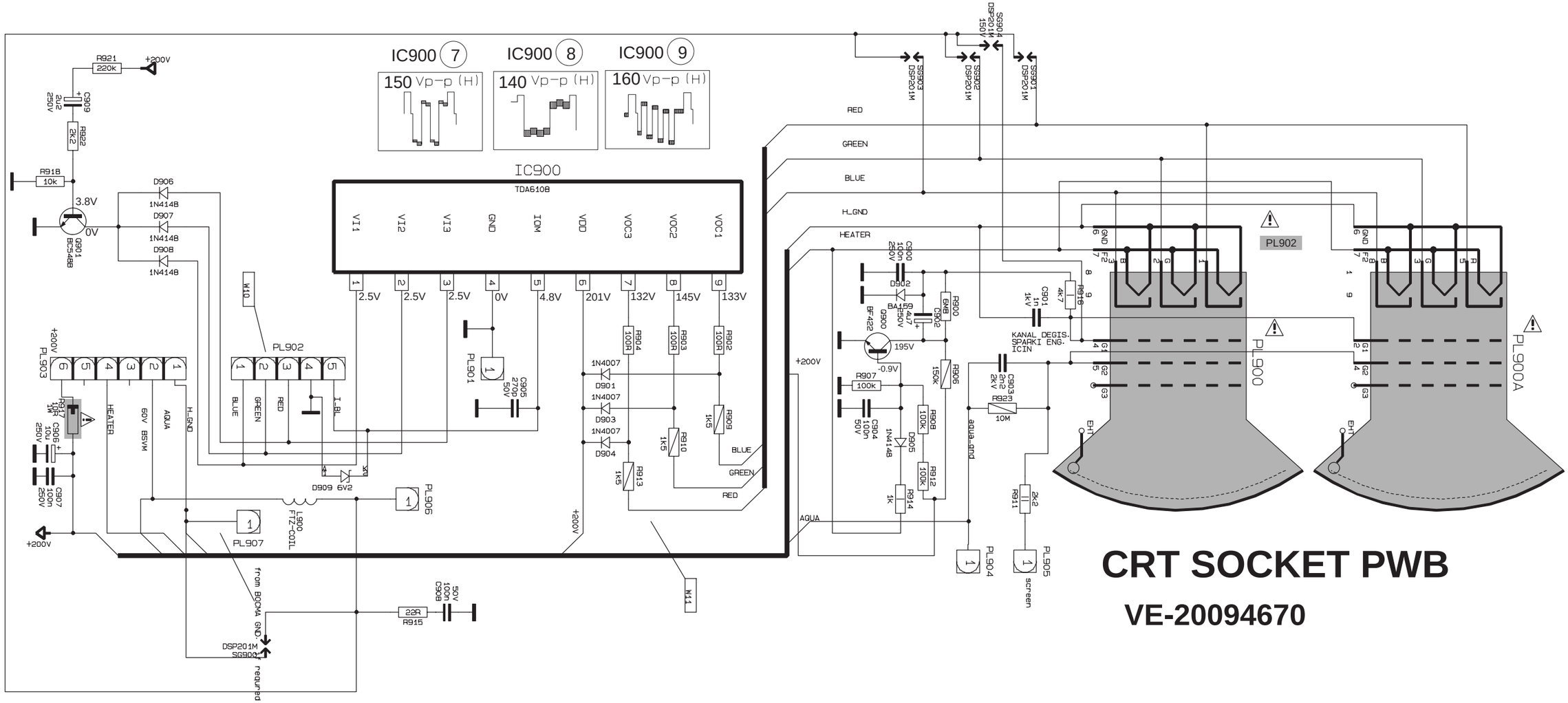


MAIN PWB (6/6)

VE-20103272 (AV-29BF11ENS)
VE-20103267 (AV-29BF11EPS)
VE-20103265 (AV-29BF11EES)

AV-29BF11ENS
AV-29BF11EPS
AV-29BF11EES

CRT SOCKET PWB CIRCUIT DIAGRAM

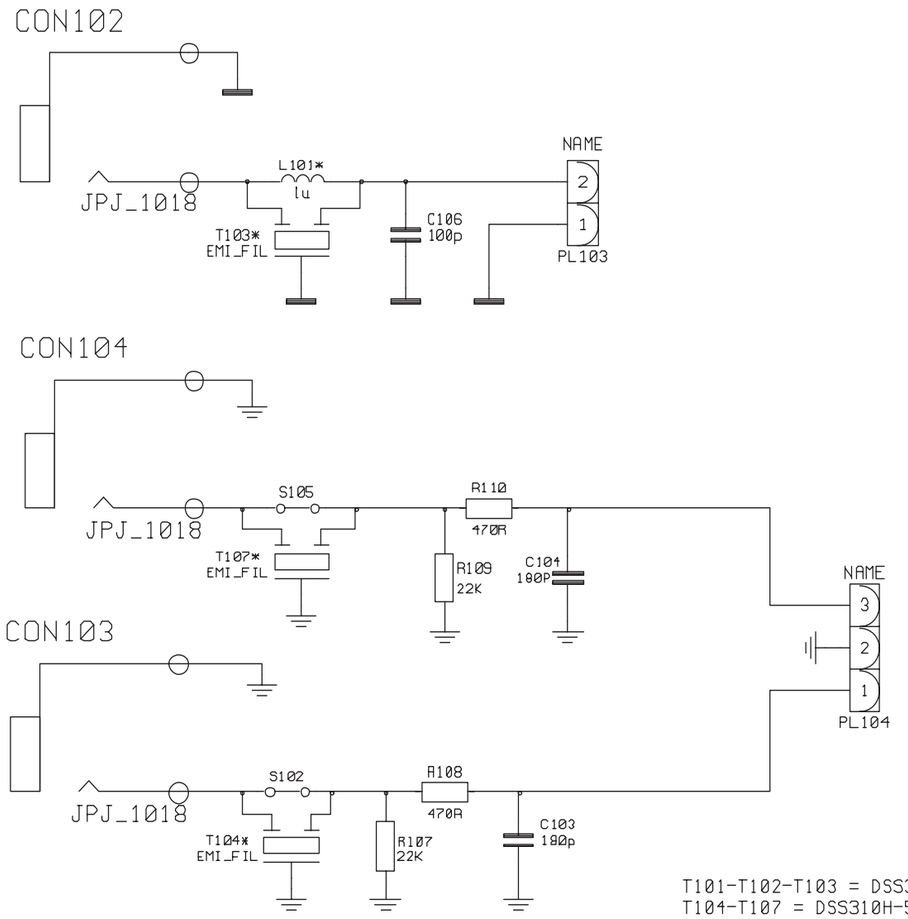


CRT SOCKET PWB

VE-20094670

AV-29BF11ENS
AV-29BF11EPS
AV-29BF11EES

FRONT AV & HEADPHONE PWB CIRCUIT DIAGRAM



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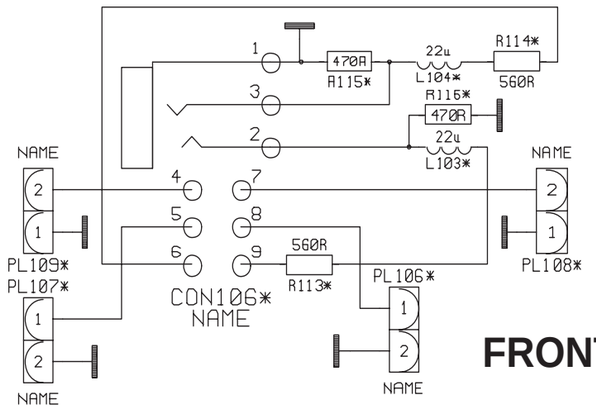
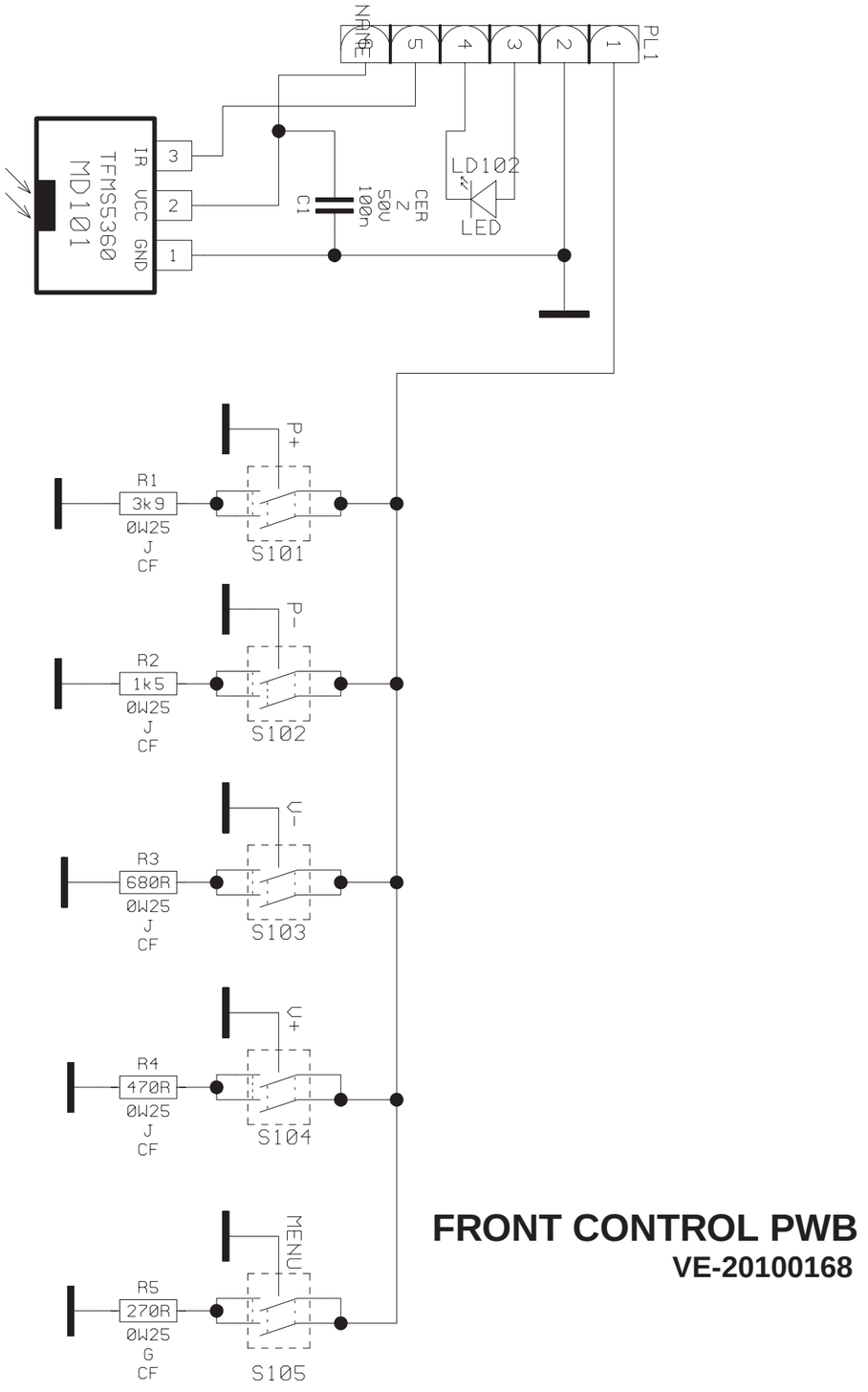
T104-T107 = DSS310H-55B222M250



FRONT AV & HEADPHONE PWB

VE-20083646

FRONT CONTROL PWB CIRCUIT DIAGRAM

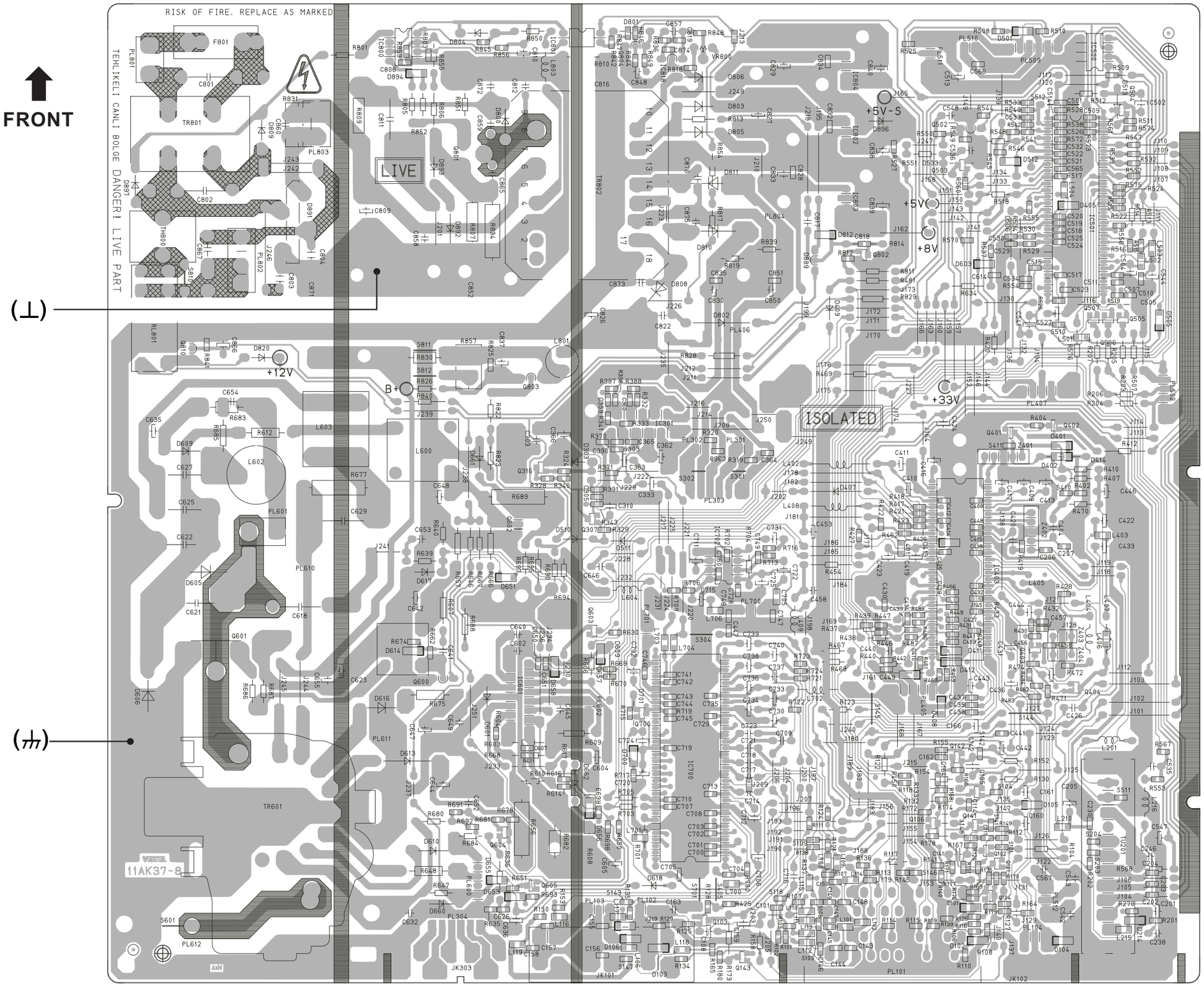


FRONT CONTROL PWB

VE-20100168

AV-29BF11ENS
AV-29BF11EPS
AV-29BF11EES

PATTERN DIAGRAMS *MAIN PWB PATTERN*



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